University of Pittsburgh
School of Medicine
CURRICULUM VITAE

BIOGRAPHICAL

Name:	Shyam Visweswaran	**Business Address:**	The Offices at Baum 5607 Baum Blvd., Suite 523 Pittsburgh, PA 15206
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EDUCATION and TRAINING

GRADUATE

Dates Attended	Name and Location of Institution	Degree Received and Year	Major Subject
07/1983 – 03/1989	Jawaharlal Institute of Post-Graduate Medical Education and Research (JIPMER), Puducherry, India	M.B.,B.S., 1989 (MD Equivalent)	Medicine and Surgery

POSTGRADUATE

Dates Attended	Name and Location of Institution	Degree Received and Year	Major Subject
09/1989 – 06/1991	Jawaharlal Institute of Post-Graduate Medical Education and Research (JIPMER), Puducherry, India	Junior Resident	Anesthesiology
08/1991 – 06/1996	University of Illinois at Urbana-Champaign, Urbana, IL	M.S., 1996	Physiology and Biophysics
07/1996 – 06/1997	St. Luke's - Roosevelt Medical Center, New York, NY	PGY1	Medicine Michael Greico, MD – program director
07/1997 – 06/1999	Boston University, Boston, MA	PGY2 – PGY4	Neurology Robert G. Feldman, MD – program director

07/2000 – 06/2001	ArsDigita University, Cambridge, MA	Post-baccalaureate program	Computer Science Shai Simonson, Ph.D. – program director
07/1999 – 06/2000	Boston University, Boston, MA		Chief Resident in Neurology
08/2001 – 10/2006	University of Pittsburgh School of Medicine Center for Biomedical Informatics and the Intelligent Systems Program, Pittsburgh, PA		Fellow in Biomedical Informatics
08/2001 – 09/2007	University of Pittsburgh, Pittsburgh, PA	Ph.D., 2007	Intelligent Systems (Artificial intelligence) (Charles P. Friedman, Ph.D. – program director)

APPOINTMENTS and POSITIONS

ACADEMIC

Years Inclusive	Name and Location of Institution	Rank/Title
08/1991 – 06/1996	University of Illinois at Urbana-Champaign, Urbana, IL	Research and teaching assistant in Physiology
11/2006 – 08/2007	University of Pittsburgh School of Medicine Department of Biomedical Informatics	Visiting Assistant Professor
09/2007 – 10/2015	University of Pittsburgh School of Medicine Department of Biomedical Informatics	Assistant Professor
01/2008 – 10/2015	University of Pittsburgh School of Computing and Information, Intelligent Systems Program	Assistant Professor (secondary appointment)
06/2010 – 10/2015	University of Pittsburgh Clinical and Translational Science Institute	Assistant Professor (secondary appointment)
11/2015 – 02/2023	University of Pittsburgh School of Medicine Department of Biomedical Informatics	Associate Professor with Tenure
11/2015 – present	University of Pittsburgh School of Computing and Information, Intelligent Systems Program	Associate Professor (secondary appointment)
11/2015 – present	University of Pittsburgh Clinical and Translational Science Institute	Associate Professor (secondary appointment)
03/2023 – present	University of Pittsburgh School of Medicine	Professor with Tenure

	Department of Biomedical Informatics	
03/2023 – present	University of Pittsburgh School of Medicine Department of Biomedical Informatics	Vice Chair of Clinical Informatics
11/2025 – present	University of Pittsburgh School of Medicine Department of Biomedical Informatics	Interim Chair

NON-ACADEMIC

Years Inclusive	**Name and Location of Institution**	**Rank/Title**
06/2008 – 05/2018	University of Pittsburgh School of Medicine Medical Scientist Training Program (MSTP)	Biomedical Informatics Program Director
06/2008 – 05/2018	Graduate Training Program in Intelligent Systems, University of Pittsburgh School of Computing and Information	Biomedical Informatics Representative
05/2009 – 12/2016	University of Pittsburgh School of Medicine Biomedical Informatics Training Program	Associate Director
05/2009 – 12/2016	Curriculum Committee, University of Pittsburgh School of Medicine Biomedical Informatics Training Program	Chair
04/2014 – 12/2015	RoboClinics, Inc., Fernley, NV	Chief Medical Advisor
07/2015 – 06/2016	University of Pittsburgh, Clinical and Translational Science Institute	Co-Director, Biomedical Informatics Core
07/2016 – present	University of Pittsburgh, Clinical and Translational Science Institute	Director, Biomedical Informatics Core
07/2016 – present	Center for Clinical Artificial Intelligence (CCAI), Department of Biomedical Informatics	Director
01/2017 – present	Institute for Clinical Research Education (ICRE), University of Pittsburgh School of Medicine	Biomedical Informatics Representative
10/2018 – present	Kvatchii, Ltd., UK	Co-founder
04/2021 – present	READE.ai, Inc., USA	Co-founder & Chief Scientific Officer
08/2023 – present	ThetaRho, Inc., USA	Chief Medical Officer
09/2023 – 09/2024	Advisory Board, CarePoint Health, USA	Member

CERTIFICATION and LICENSURE

SPECIALTY CERTIFICATION

Certifying Board	**Date**

Pending; Board Eligible in Psychiatry and Neurology

MEDICAL or OTHER PROFESSIONAL LICENSURE

Licensing Board/State	**Date**
Educational Commission for Foreign Medical Graduates	01/28/1992
Federation Licensing Examination (FLEX)	06/15/1993
United States Medical Licensing Examination (USMLE) Step 1	06/14/1995
United States Medical Licensing Examination (USMLE) Step 2	08/30/1995

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

Organization	**Year**
American Academy of Neurology (AAN)	1997 – 2001, 2018 – present
American Medical Informatics Association (AMIA)	2001 – present
Association for the Advancement of Artificial Intelligence (AAAI)	2001 – present
Association of Computing Machinery (ACM)	2015 – present
American Association for the Advancement of Science (AAAS)	2016 – present
American Clinical Neurophysiology Society (ACNS)	2020 – present
Indian Association for Medical Informatics (IAMI)	2022 – present
Australasian Institute of Digital Health (AIDH)	2022 – present
Institute of Electrical and Electronics Engineers (IEEE)	2023 – present
IEEE Engineering in Medicine and Biology Society (EMBS)	2023 – present
American Heart Association (AHA)	2023 – 2024

Fellowship at Organization	
Fellow of the American Medical Informatics Association (FAMIA)	2021 – present
Fellow of the Australasian Institute of Digital Health (FAIDH)	2022 – present
Fellow of the American College of Medical Informatics (FACMI)	2023 – present
Fellow of the International Academy of Health Sciences Informatics (IAHSI)	2024 – present

HONORS

Title of Award	**Year**

National Science Talent Search Scholarship, Government of India	1981 – 1991
Excellent Teacher, School of Life Sciences, University of Illinois at Champaign-Urbana, Urbana, IL	1995 – 1996
Chief Resident, Department of Neurology, Boston University, Boston, MA	2000 – 2001
National Library of Medicine Fellow in Biomedical Informatics, University of Pittsburgh Medical School, Pittsburgh, PA	2001 – 2006
Distinguished Paper Award, American Medical Informatics Association (AMIA) Annual Symposium, Washington, DC (for a co-authored paper)	2005
Third place, American Medical Informatics Association (AMIA) Annual Symposium Student Paper Competition, Washington, DC (for a first-authored paper)	2005
Finalist for the Best Paper Award, American Medical Informatics Association (AMIA) Annual Symposium, Chicago, IL (for a co-authored paper)	2007
Homer R. Warner Research Award, American Medical Informatics Association (AMIA) Annual Symposium, Washington, DC (for a co-authored paper)	2010
Marco Ramoni Award, AMIA Summit on Translational Bioinformatics, San Francisco, CA (for a co-authored paper)	2011
Distinguished Paper Award, AMIA Summit on Translational Bioinformatics, San Francisco, CA (for a co-authored paper)	2012
Distinguished Paper Award, AMIA Summit on Translational Bioinformatics, San Francisco, CA (for a co-authored paper)	2013
Inaugural Hattie Becich Award for Best Teacher, Department of Biomedical Informatics, University of Pittsburgh Medical School, Pittsburgh, PA	2014
Martin Epstein Award and First place, American Medical Informatics Association (AMIA) Annual Symposium Student Paper Competition, Washington, DC (for a last-authored paper)	2015
First place, AMIA Joint Summits Clinical Research Informatics Student Paper Competition, San Francisco, CA (for a co-authored paper)	2017
First place, AMIA Informatics Summit Clinical Research Informatics Student Paper Competition, San Francisco, CA (for a co-authored paper)	2018
Outstanding Paper Award at the Science of Team Science (SciTS) Conference, Galveston, TX (for a co-authored paper)	2018
Allen Humphrey Excellence in Mentoring Award, University of Pittsburgh Medical School, Pittsburgh, PA (presented to a Deans Summer Research (DSRP) mentor who demonstrated exemplary care and commitment in all aspects of DSRP student mentoring)	2018
Elected as Member of i2b2 tranSMART Foundation, Boston, MA	2018
Finalist for the Distinguished Paper Award, American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, CA (for a last-authored paper)	2018

Featured presentation at the Machine Learning & Artificial Intelligence Application in Translational Science: Un-Meeting by the Center for Leading Innovation & Collaboration, Rochester, NY	2019
Medical Student Research Mentoring Merit Award University of Pittsburgh Medical School, Pittsburgh, PA (presented to a Longitudinal Research Project (LRP) mentor of a graduating Pitt Med student in recognition for outstanding mentoring over the course of the LRP)	2021
Elected as Fellow of the American Medical Informatics Association (FAMIA)	2021
Elected as Fellow of the Australasian Institute of Digital Health (FAIDH)	2022
Elected as Fellow of the American College of Medical Informatics (FACMI)	2023
Member of the National Academies of Sciences, Engineering, and Medicine's (NASEM) ad hoc committee to assess the use of the social constructs of race and ethnicity in biomedical research	2023 – 2024
Elected as Fellow of the International Academy of Health Sciences Informatics (IAHSI)	2024
Member of the Encoding Equity Inaugural Advisory Committee, Council of Medical Specialty Societies (CMSS)	2024 – present

PUBLICATIONS

1. ORIGINAL PEER REVIEWED ARTICLES

Original Peer Reviewed Journal Articles

1. Bartling WC, Schleyer TK, **Visweswaran S**. Retrieval and classification of dental research articles. *Advances in Dental Research.* 2003 Dec;17:115-20. PMID: 15126221.
2. McEllistrem CM, Noller AC, **Visweswaran S**, Adams JM, Harrison LH. Serotype 14 variants of the France 9V-3 Clone from Baltimore, Maryland can be differentiated by the cpsB gene. *Journal of Clinical Microbiology.* 2004 Jan;42(1):250-6. PMID: 14715761; PMCID: PMC321660.
3. McEllistrem MC, Adams JM, **Visweswaran S**, Khan S. Detection of very-high-level penicillin resistant variants of the Tennessee 23F-4 clone via single and serial transformations with four serotype 19A international pneumococcal clones. *Microbial Drug Resistance.* 2005 Fall;11(3):271-8. PMID: 16201931.
4. Wong AI, Stephens SB, Aspinall, MB, **Visweswaran S**, Hanlon JT, Handler SM. Assessing the quality of prescribing and monitoring erythropoiesis stimulating agents in the nursing home setting. *Journal of the American Medical Directors*. 2009 Jul;10(6):436-9. PMID: 19560723; PMCID: PMC2846620.
5. Lustgarten JL, **Visweswaran S**, Bowser RP, Hogan WR, Gopalakrishnan V. Knowledge-based variable selection for rule learning on proteomic data. *BMC Bioinformatics*. 2009 Sep 17;10 Suppl 9(Suppl 9):S16. PMID: 19761570; PMCID: PMC2745687.
6. Kalamangalam GP, Morris HH, Mani J, Lachhwani DK, **Visweswaran S**, Bingaman WM. Noninvasive correlates of subdural grid electrographic outcome. *Journal of Clinical Neurophysiology*. 2009 Oct;26(5):333-41. PMID: 20168131.

7. Gopalakrishnan V, Lustgarten JL, **Visweswaran S**, Cooper GF. Bayesian rule learning for biomedical data mining. *Bioinformatics*. 2010 Mar 1;26(5):668-75. PMID: 20080512; PMCID: PMC2852212.
8. Jiang X, Barmada MM, **Visweswaran S**. Identifying genetic interactions in genome-wide data using Bayesian networks. *Genetic Epidemiology*. 2010 Sep;34(6):575-81. PMID: 20568290; PMCID: PMC3931553.
9. **Visweswaran S**, Angus DC, Hsieh M, Weissfeld L, Yealy D, Cooper GF. Learning patient-specific predictive models from clinical data. *Journal of Biomedical Informatics.* 2010 Oct;43(5):669-85. PMID: 20450985; PMCID: PMC2933959.
10. **Visweswaran S**, Cooper GF. Learning instance-specific predictive models. *Journal of Machine Learning Research.* 2010 Dec 1;11:3369−3405. PMID: 25045325; PMCID: PMC4102007.
11. Jiang X, Neapolitan RE, Barmada MM, **Visweswaran S**. Learning genetic epistasis using Bayesian network scoring criteria. *BMC Bioinformatics*. 2011 Mar 31;12:89. PMID: 21453508; PMCID: PMC3080825.
12. Wei W, **Visweswaran S**, Cooper GF. The application of naive Bayes model averaging to predict Alzheimer's disease from genome-wide data. *Journal of the American Medical Informatics Association*. 2011 Jul-Aug;18(4):370-5. PMID: 21672907; PMCID: PMC3128400.[1]
13. Lustgarten JL*, **Visweswaran S***, Gopalakrishnan V, Cooper GF. Application of an efficient Bayesian discretization method to biomedical data. *BMC Bioinformatics.* 2011 Jul 28;12:309. PMID: 21798039; PMCID: PMC3162539. *Shared first authorship.
14. Kane-Gill SL, **Visweswaran S**, Saul MI, Wong AI, Penrod L, Handler SM. Computerized detection of adverse drug reactions in the medical intensive care unit. *International Journal of Medical Informatics*. 2011 Aug;80(8):570-8. PMID: 21621453; PMCID: PMC3139253.
15. Mowery D, Weibe J, **Visweswaran S**, Harkema H, Chapman WW. Building an automated SOAP classifier for emergency department reports. *Journal of Biomedical Informatics*. 2012 Feb;45(1):71-81. PMID: 21925286; PMCID: PMC3267853.
16. Bhavnani SK, Bellala G, Victor S, Bassler K, **Visweswaran S**. The role of complementary bipartite visual analytical representations in the analysis of SNPs: a case study in ancestral informative markers. *Journal of the American Medical Informatics Association*. 2012 Jun;19(e1):e5-e12. PMID: 22718038; PMCID: PMC3392853.[2]
17. Strobl EV, Eack SM, Swaminathan V, **Visweswaran S**. Predicting the risk of psychosis onset: Advances and prospects. *Early Intervention in Psychiatry*. 2012 Nov;6(4):368-79. PMID: 22776068; PMCID: PMC3470783.
18. Stokes M, **Visweswaran S**. Application of a spatially-weighed Relief algorithm for ranking genetic predictors of disease. *BioData Mining*. 2012 Dec 3;5(1):20. PMID: 23198930; PMCID: PMC3554553.
19. Hauskrecht M, Batal I, Valko M, **Visweswaran S**, Cooper GF, Clermont G. Outlier detection for patient monitoring and alerting. *Journal of Biomedical Informatics*. 2013 Feb;46(1):47-55. PMID: 22944172; PMCID: PMC3567774.

[1] Received the Marco Ramoni Distinguished Paper Award for Translational Bioinformatics and selected as one of the best papers at the AMIA Summit on Translational Bioinformatics, 2011.
[2] Received a Distinguished Paper Award for Translational Bioinformatics and selected as one of the best papers at the AMIA Summit on Translational Bioinformatics, 2012.

20. Kalamangalam GP, Pestana Knight EM, **Visweswaran S**, Gupta A. Noninvasive predictors of subdural grid seizure localization in children with nonlesional focal epilepsy. *Journal of Clinical Neurophysiology*. 2013 Feb;30(1):45-50. PMID: 23377441.

21. Kimmel C, **Visweswaran S**. An algorithm for network-based gene prioritization that encodes knowledge both in nodes and in links. *PLoS One*. 2013 Nov 19;8(11):e79564. PMID: 24260251; PMCID: PMC3834271.

22. Stokes ME, Barmada MM, Kamboh MI, **Visweswaran S**. The application of network label propagation to rank biomarkers in genome-wide Alzheimer's data. *BMC Genomics*. 2014 Apr 14;15(1):282. PMID: 24731236; PMCID: PMC4234455.

23. Aflakparast M, Salimi H, Gerami A, Dubé M-P, **Visweswaran S**, Masoudi-Nejad A. Cuckoo search epistasis: a new method for exploring significant genetic interactions. *Heredity*. 2014 Jun;112(6):666-74. PMID: 24549111; PMCID: PMC4023449.

24. Aflakparast M, Masoudi-Nejad A, Bozorgmehr JH, **Visweswaran S**. Informative Bayesian Model Selection: a method for identifying interactions in genome-wide data. *Molecular BioSystems*. 2014 Oct;10(10):2654-62. PMID: 25070634.

25. Jordan R, **Visweswaran S**, Gopalakrishnan V. Semi-automated literature mining to identify putative biomarkers of disease from multiple biofluids. *Journal of Clinical Bioinformatics*. 2014 Oct 23;4:13. PMID: 25379168; PMCID: PMC4215335.

26. Zaidi AH, Gopalakrishnan V, Kasi PM, Malhotra U, Balasubramanian J, **Visweswaran S**, Zeng X, Sun M, Bergman JJ, Bigbee WL, Jobe BA. Evaluation of a four-protein biomarker panel for detection of esophageal adenocarcinoma. *Cancer*. 2014 Dec 15;120(24):3902-13. PMID: 25100294; PMCID: PMC4441619.

27. Floudas CS, Kamboh MI, Barmada MM, **Visweswaran S**. Identifying genetic interactions associated with late-onset Alzheimer's disease. *BioData Mining*. 2014 Dec 19;7(1):35. PMID: 25649863; PMCID: PMC4300162.

28. Bhavnani SK, Dang B, Bellala G, Divekar R, **Visweswaran S**, Brasier A, Kurosky A. Unlocking proteomic heterogeneity in complex diseases through visual analytics. *Proteomics*. 2015 Apr;15(8):1405-18. PMID: 25684269; PMCID: PMC4471338.

29. Kimmel C, **Visweswaran S**. KNGP: a network-based gene prioritization algorithm that incorporates multiple sources of knowledge. *American Journal of Bioinformatics and Computational Biology*. 2015 Apr 25;3(1):1-4. PMID: 31245171; PMCID: PMC6594558.

30. **Visweswaran S**, Ferreira A, Cooper GF. Personalized modeling for prediction with decision-path models. *PLoS One*. 2015 Jun 22;10(6): e0131022. PMID: 26098570; PMCID: PMC4476684.

31. Ogoe HA, **Visweswaran S**, Lu X, Gopalakrishnan V. Knowledge transfer via classification rules using functional mapping for integrative modeling of gene expression data. *BMC Bioinformatics*. 2015 Jul 23;16:226. PMID: 26202217; PMCID: PMC4512094.

32. Pineda AL, Ye Y, **Visweswaran S**, Cooper GF, Wagner MM, Tsui FC. Comparison of machine learning classifiers for influenza detection from emergency department free text reports. *Journal of Biomedical Informatics*. 2015 Dec;58:60-9. PMID: 26385375; PMCID: PMC4684714.

33. Strobl EV, **Visweswaran S**. Markov boundary discovery with ridge regularized linear models. *Journal of Causal Inference*. 2016 Mar;4(1):31-48. PMID: 27170915; PMCID: PMC4861166.

34. Pineda AL, Ogoe HA, Balasubramanian JB, Escareño CR, **Visweswaran S**, Herman JG, Gopalakrishnan V. On predicting lung cancer subtypes using 'omic' data from tumor and tumor-adjacent histologically-normal tissue. *BMC Cancer*. 2016 Mar 4;16(1):184. PMID: 26944944; PMCID: PMC4778315.

35. Tenenbaum JD, Avillach P, Benham-Hutchins M, Breitenstein MK, Crowgey EL, Hoffman MA, Jiang X, Madhavan S, Mattison JE, Radhakrishnan N, Ray B, Shin D, **Visweswaran S**, Zhao Z, Freimuth RR. An informatics research agenda to support precision medicine: 7 key areas. *Journal of the American Medical Informatics Association*. 2016 Jul;23(4):791-5. PMID: 27107452; PMCID: PMC4926738.

36. Hauskrecht M, Batal I, Hong C, Cooper GF, **Visweswaran S**, Clermont G. Outlier-based detection of unusual patient-management actions: an ICU study. *Journal of Biomedical Informatics*. 2016 Dec;64:211-221. PMID: 27720983; PMCID: PMC5207478.

37. Lustgarten JL, Balasubramanian JB, **Visweswaran S**, Gopalakrishnan V. Learning parsimonious classification rules from gene expression data using Bayesian networks with local structure. *Data*. 2017 Mar;2(1). PMID: 28331847; PMCID: PMC5358670.

38. Culbertson A, Goel S, Madden M, Safaeinili N, Jackson KL, Carton T, Waitman R, Liu M, Krishnamurthy A, Hall L, Cappella N, **Visweswaran S**, Becich MJ, Applegate R, Bernstam E, Rothman R, Matheny M, Lipori G, Bian J, Hogan W, Bell D, Martin A, Grannis S, Klann J, Sutphen R, O'Hara AB, Kho A. The building blocks of interoperability: a multisite analysis of patient demographic attributes available for matching. *Applied Clinical Informatics*. 2017 Apr 5;8(2):322-336. PMID: 28378025; PMCID: PMC6241737.

39. Castro SM, Tseytlin E, Medvedeva O, Mitchell K, **Visweswaran S**, Bekhuis T, Jacobson RS. Automated annotation and classification of BI-RADS assessment from radiology reports. *Journal of Biomedical Informatics*. 2017 May;69:177-187. PMID: 28428140; PMCID: PMC5706448.

40. Tenenbaum JD, Bhuvaneshwar K, Gagliardi JP, Hollis KF, Jia P, Ma L, Nagarajan R, Rakesh G, Subbian V, **Visweswaran S**, Zhao Z, Rozenblit L. Translational bioinformatics in mental health: open access data sources and computational biomarker discovery. *Briefings in Bioinformatics*. 2019 May 21;20(3):842-856. PMID: 29186302; PMCID: PMC6585382.

41. Bhavnani SK, Dang B, Kilaru V, Caro M, **Visweswaran S**, Saade G, Smith AK, Menon R. Methylation differences reveal heterogeneity in preterm pathophysiology: results from bipartite network analyses. *Journal of Perinatal Medicine*. 2018 Jul 26;46(5):509-521. PMID: 28665803; PMCID: PMC5971156.

42. Strobl EV, **Visweswaran S**, Spirtes PL. Fast causal inference with non-random missingness by test-wise deletion. *International Journal of Data Science and Analytics*. 2018 Aug;6(1):47-62. PMID:31321289; PMCID: PMC6638553.

43. **Visweswaran S**, Becich MJ, D'Itri VS, Sendro ER, MacFadden D, Anderson NR, Allen KA, Ranganathan D, Murphy SN, Morrato EH, Pincus HA, Toto R, Firestein GS, Nadler LM, Reis SE. Accrual to Clinical Trials (ACT): a Clinical and Translational Science Award Consortium network. *JAMIA Open*. 2018 Oct;1(2):147-152. PMID: 30474072; PMCID: PMC6241502.

44. Bhavnani SK, **Visweswaran S**, Divekar R, Brasier A. Towards team-centered informatics: accelerating innovation in multidisciplinary scientific teams through visual analytics. *The Journal of Applied Behavioral Science*. 2019 Mar;55(1):50-72.

45. Strobl E, Zhang K, **Visweswaran S**. Approximate kernel-based conditional independence tests for fast non-parametric causal discovery. *Journal of Causal Inference*. 2019 Mar;4(1):31-48.

46. Seymour CW, Kennedy J, Wang S, Chang C-CH, Elliot CF, Xu Z, Berry S, Clermont G, Cooper G, Gomez H, Huang DT, Kellum JA, Mi Q, Opal SM, Talisa V, Poll T, **Visweswaran S**, Vodovotz Y, Weiss JC, Yealy DM, Yende S, Angus DC. Derivation, validation, and potential treatment implications of novel clinical phenotypes for sepsis. *JAMA*. 2019 May 28;321(20):2003-17. PMID: 31104070; PMCID: PMC6537818.

47. All of Us Research Program Investigators*, Denny JC, Rutter JL, Goldstein DB, Philippakis A, Smoller JW, Jenkins G, Dishman E. The "All of Us" Research Program. *New England Journal of Medicine*. 2019 Aug 15;381(7):668-676. PMID: 31412182; PMCID: PMC8291101. *Listed as one of All of Us Principal Investigators.

48. Trivedi G, Dadashzadeh E, Handzel R, Chapman W, **Visweswaran S**, Hochheiser H. Interactive NLP in clinical care: identifying incidental findings in radiology reports. *Applied Clinical Informatics*. 2019 Aug;10(4):655-669. PMID: 31486057; PMCID: PMC6727024.

49. Trivedi G, Hong C, Dadashzadeh E, Handzel R, Hochheiser H, **Visweswaran S**. Identifying incidental findings from radiology reports of trauma patients: an evaluation of automated feature representation methods. *International Journal of Medical Informatics*. 2019 Sep 1;129:81-7. PMID: 31445293; PMCID: PMC6717529.

50. Strobl EV, Spirtes P, **Visweswaran S**. Estimating and controlling the False Discovery Rate of the PC algorithm using edge-specific p-values. *ACM Transactions on Intelligent Systems and Technology*. 2019 Oct 10;10(5):1-37.

51. Tajgardoon M, Samayamuthu M, Calzoni L, **Visweswaran S**. Patient-specific explanations for predictions of risk outcomes. *ACI Open*. 2019 Jul;3(2):e88-e97. PMID: 34095753; PMCID: PMC8174671.

52. King AJ, Cooper GF, Clermont G, Hochheiser H, Hauskrecht M, Sittig DF, **Visweswaran S**. Using machine learning to selectively highlight patient information. *Journal of Biomedical Informatics*. 2019 Dec;100:103327. PMID: 31676461; PMCID: PMC6932869.

53. King AJ, Cooper GF, Clermont G, Hochheiser H, Hauskrecht M, Sittig DF, **Visweswaran S**. Leveraging eye tracking to prioritize relevant medical record data: comparative machine learning study. *Journal of Medical Internet Research*. 2020 Apr 2;22(4):e15876. PMID: 32238342; PMCID: PMC7163414.

54. **Visweswaran S**, Colditz JB, O'Halloran P, Han NR, Taneja SB, Welling J, Chu KH, Sidani JE, Primack BA. Machine learning classifiers for Twitter surveillance of vaping: comparative machine learning study. *Journal of Medical Internet Research*. 2020 Aug 12;22(8):e17478. PMID: 32784184; PMCID: PMC7450367.

55. Calzoni L, Clermont G, Cooper GF, **Visweswaran S**, Hochheiser H. Graphical presentations of clinical data in a Learning Electronic Medical Record. *Applied Clinical Informatics*. 2020 Aug;11(04):680-691. PMID: 33058103; PMCID: PMC7560537.

56. Bhavnani SK, Dang B, Penton R, **Visweswaran S**, Bassler KE, Chen T, Raji M, Divekar R, Zuhour R, Karmarkar A, Kuo Y-F, Ottenbacher KJ. How high-risk comorbidities co-occur in readmitted patients with hip fracture: big data visual analytical approach. *JMIR Medical Informatics*. 2020 Oct 26;8(10):e13567. PMID: 33103657; PMCID: PMC7652691.

57. Yu K, **Visweswaran S**, Batmanghelich K. Semi-supervised hierarchical drug embedding in hyperbolic space. *Journal of Chemical Information and Modeling*. 2020 Dec 28;60(12):5647-5657. PMID: 33140969; PMCID: PMC7943198.

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[9] Awarded First Place in the Student Paper Competition at the AMIA Joint Summits Clinical Research Informatics, 2017.
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72. Samayamuthu MJ, Sadhu EM, Anderson JW, **Visweswaran S**. A survey of clinical algorithms with race. In: *AMIA Informatics Summit Proceedings*. 2024 Mar 19. (Poster abstract)
73. Espino JU, **Visweswaran S**, Cooper G. Effects of De-identification on named entity recognition of emergency department reports. In: *AMIA Informatics Summit Proceedings*. 2024 Mar 20. (Poster abstract)
74. Bhavnani SK, Solod A, Ajewole V, Hunter R, Schmidt S, Pappadis MR, Reistetter T, **Visweswaran S**. Deep cluster interpretation of SDoH subtypes: towards human-centered AI systems. In: *AMIA Informatics Summit Proceedings*. 2024 Mar 18. (Podium presentation abstract)
75. Ogunyemi O, **Visweswaran, S**, Fernandes C, Comeau D, Shah M, Costello J. Fairness and bias in artificial intelligence. In: *AMIA Informatics Summit Proceedings*. 2024 Mar 21. (Panel presentation abstract)
76. Wen A, Sohn S, **Visweswaran S**, Wang Y, Liu H. On federated development and deployment of post-market active surveillance for medical device safety: a discussion on opportunities and challenges. In: *AMIA Informatics Summit Proceedings*. 2024 Mar 21. (Panel presentation abstract)

[13] Finalist for the Best Poster Award at the AMIA Annual Symposium, 2023.

77. Celi L, Hochheiser H, **Visweswaran S**, Horvat C. A datathon for exploring potential biases in medical artificial intelligence. In: *AMIA Informatics Summit Proceedings*. 2025 Mar 10. (Collaborative workshop abstract)
78. Wang Y, Fu S, Heider P, Harris D, Morris M, **Visweswaran S**. Incorporating natural language processing within a large national network: current state of ENACT NLP working group. In: *AMIA Informatics Summit Proceedings*. 2025 Mar 12. (Panel presentation abstract)
79. Morris M, Samayamuthu MJ, **Visweswaran S**. Towards a more comprehensive medication ontology in the ENACT Network. In: *AMIA Informatics Summit Proceedings*. 2025 Mar 12. (Poster presentation abstract)
80. Zhang Y, Draugelis M, Aphinyanaphongs Y, **Visweswaran S**, Overgaard S. AI evaluation showcase invited session: evaluating artificial intelligence to enable patient care. In: *AMIA Informatics Summit Proceedings*. 2025 Mar 13. (Panel presentation abstract)
81. Kravchenko O, Samayamuthu MJ, Lo-Ciganic J, Sadhu E, Yang S, **Visweswaran S**, Gopalakrishnan V. Trends in postpartum hemorrhage prevalence and comorbidity burden among women: insights from the ENACT Network aggregated electronic health records data. In: *AMIA Informatics Summit Proceedings*. 2025 Mar 13. (Podium presentation abstract)
82. Venkatesh S, DelSignore M, Wu X, Morris M, Kerr W, **Visweswaran S**, Wang Y, Xia Z. Deconstructing complex diagnostic criteria and leveraging generative artificial intelligence to facilitate multiple sclerosis diagnosis In: *ACTRIMS Forum 2025*. 2025 Feb 27-Mar 1. *Multiple Sclerosis Journal*. 31(2_Suppl), 244.

7. PUBLICATION EQUIVALENT SCHOLARLY PRODUCTS (PREPRINTS)

1. **Visweswaran S**, Cooper GF. Counting Markov Blanket structures. *arXiv preprint* arXiv:1407.2483. 2014 Jul 9.
2. **Visweswaran S**, Zhang LY, Bui K, Sadhu EM, Samayamuthu MJ, Morris MM. Sharing and reusing computable phenotype definitions. *medRxiv*. 2023 Sep 18:2023.09.17.23295681. doi: https://doi.org/10.1101/2023.09.17.23295681. PMID: 37790390; PMCID: PMC10543043.
3. Wang TD, Henderson DW, Weber GM, Morris M, Sadhu E, Murphy SN, **Visweswaran S**, Klann JG. Understanding data differences across the ENACT federated research network. *medRxiv*. 2025 Jan 17: 2025.01.17.25320686. doi: 10.1101/2025.01.17.25320686. PMID: 39867368; PMCID: PMC11759252.
4. Subramanian H, **Visweswaran S,** Sadhasivam S, Mahajan A. Post induction hypotension prediction during general anesthesia using machine learning techniques. *medRxiv*. 2025 Apr 19:2025.04.14.25322061. doi: 10.1101/2025.04.14.25322061.
5. DiSanto D, Tang W, Zhu W, Morris M, **Visweswaran S**, Cai T, Xia Z. Comparison of B-cell depletion versus natalizumab for treatment of multiple sclerosis: a semi-supervised causal analysis. *medRxiv*. 2025 Apr 22: 2025.01.24.25321100. doi: 10.1101/2025.01.24.25321100.
6. Venkatesh S, Wang L, Morris M, Moro M, Srivastava R, Han Y, Patira R, Berman S, Lopez O, **Visweswaran S**, Cai T, Cai T, Xia Z. Leveraging electronic health records to examine differential clinical outcomes in people with Alzheimer's Disease. *medRxiv*. 2025 Apr 23:2025.04.22.25326230. doi: 10.1101/2025.04.22.25326230. PMID: 40313269; PMCID: PMC12045444.
7. Sivarajkumar S, Zhang H, Ji Y, Bilalpur M, Wu X, Li C, Kwak MG, **Visweswaran S**, Wang Y. Generative foundation model for structured and unstructured electronic health records. *arXiv preprint*. 2025 Aug 22: 2508.16054. doi: https://arxiv.org/abs/2508.16054.

8. Nyanney E, Thirumala P, **Visweswaran S**, Geng Z. A deep lightweight convolutional neural network for detecting artifacts in continuous EEG signals. *medRxiv*. 2025 Oct 29:2025.10.28.25338681. doi: 10.1101/2025.10.28.25338681.
9. Gan Z, Zhu W, Tang W, Sweet SM, Morris M, Han Y, Chen C, Lu J, Song E, Moro M, **Visweswaran S**, Cai T, Chitnis T, Cai T, Xia Z. Knowledge graph-guided identification of multiple sclerosis and therapeutic trend analysis: real-world evidence from two large healthcare systems. *medRxiv*. 2025 Nov 14: 2025.11.12.25340116. doi: 10.1101/2025.11.12.25340116
10. Ghosh S, Joshi VP, Syed R, Kassem A, Varshney A, Basak P, Dai W, Gichoya JW, Trivedi HM, Banerjee I, **Visweswaran S,** Poynton CB, Batmanghelich K. Mammo-FM: breast-specific foundational model for integrated mammographic diagnosis, prognosis, and reporting. *arXiv preprint*. 2025 Nov 28:2512.00198. doi: https://arxiv.org/abs/2512.00198.
11. Anderson JW, **Visweswaran S**. The effect of enforcing fairness on reshaping explanations in machine learning models. *arXiv preprint*. 2025 Dec 1: 2512.02265. doi: https://arxiv.org/abs/2512.02265.
12. Wu X, Garduno-Rapp NE, Rousseau JF, Thakkallapally M, Zhang H, Ji Y, **Visweswaran S**, Peng Y, Wang Y. Orchestrator multi-agent clinical decision support system for secondary headache diagnosis in primary care. *arXiv preprint*. 2025 Dec 3:2512.04207. doi: https://arxiv.org/abs/2512.04207.

PROFESSIONAL ACTIVITIES

TEACHING

Medical Student Teaching:

1999 – 2000	Neurology Lectures for Medical Students, Boston University School of Medicine, Boston, MA
2022	Fundamentals of Data Science in Health Care - 1 lecturer, Artificial Intelligence and Machine Learning in Healthcare (Personal Enrichment Course), University of Pittsburgh School of Medicine
2022 – 2023	Artificial Intelligence in Medicine lecturer, Evidence Based Medicine – Applied, University of Pittsburgh School of Medicine
2022 – 2023	Artificial Intelligence in Clinical Medicine lecturer, Changing Science, Changing Society: A Guide to 21st Century Medicine (MSELCT 5700), University of Pittsburgh School of Medicine
2024 – present	Ethical Uses of AI in Medicine and Science lecturer, Ethics for Medical Scientists (MSTP 5983), University of Pittsburgh School of Medicine
2024 – present	Translating Discoveries into the Clinical Realm lecturer, Computational Science and AI (MSTP course), University of Pittsburgh School of Medicine

Graduate Student Teaching:

1995 – 1996	Teaching Assistant, Physiology laboratory course, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL

2002	Teaching Assistant, BIOINF 2011 Probabilistic Methods for Computer-Based Decision Support, Pittsburgh Medical Informatics Training Program, University of Pittsburgh School of Medicine
2002 – 2003	Files, data types and variables lecturer, Programming Basics Workshop, Pittsburgh Medical Informatics Training Program, University of Pittsburgh School of Medicine
2007 – 2014	Instructor and Co-Director or Director, BIOINF 2011 Introduction to Health Informatics (3 credits), Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2009 – 2018	Genomics lecturer, BIOINF 2051 Foundations of Bioinformatics, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2010 – 2019	Instructor, Course Developer, and Director, BIOINF 2119 Probabilistic Methods in Artificial Intelligence (3 credits), Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2011 – 2018	Evaluation in medical informatics lecturer, BIOINF 2011 Foundations of Clinical and Public Health Informatics, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2011, 2013, 2015	National Science Foundation (NSF) lecturer, BIOINF 2132 Special Topics: Grant Writing in Biomedical Informatics, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2011	Introduction to artificial intelligence lecturer, Computational and Systems Biology and Biomedical Informatics (CoSBBI) program for high school students, University of Pittsburgh School of Medicine
2012	Facilitator for Medical Scientist Training Program's course, MSTP 5290 Research Basis of Medical Knowledge, University of Pittsburgh School of Medicine
2012	Bayesian networks in human genetics lecturer, HUGEN 2080Statistical Genetics, University of Pittsburgh Graduate School of Public Health
2013	Machine learning lecturer, CS 1571 Introduction to Artificial Intelligence, University of Pittsburgh Dietrich School of Arts and Sciences
2013 – 2014	Instructor, Course Developer, and Director, BIOINF 2011 Foundations of Clinical and Public Health Informatics (Online, 3 credits), Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2013 – 2014	Genome-wide association studies lecturer, Computational and Systems Biology and Biomedical Informatics (CoSBBI) program for high school students, University of Pittsburgh School of Medicine
2015	Facilitator for University of Pittsburgh Medical Scientist Training Program's course Ethics for Medical Scientists, University of Pittsburgh School of Medicine
2016	The Precision Medicine Initiative and Transforming Healthcare Data for Research lecturer, CMU 42-671 Precision Medicine for Bioengineers, Carnegie Mellon University, Pittsburgh, PA

2017	Instructor for breakout session on Single Cell Pathways in Causal Discovery from Biomedical Data summer Short Course, June 12-15, 2017, Carnegie Mellon University, Pittsburgh, PA
2018	Big Data Resources, Mining and Analysis of Patient Data lecturer, MSMPHL 2370 Drug Discovery, University of Pittsburgh School of Medicine
2018	The Precision Medicine Initiative and Transforming Healthcare Data for Research lecturer, CMU 42-671 Precision Medicine for Bioengineers, Carnegie Mellon University, Pittsburgh, PA
2018	Instructor for breakout session on Single Cell Pathways in Causal Discovery from Biomedical Data summer Short Course, June 11-15, 2018, Carnegie Mellon University, Pittsburgh, PA
2019 – 2020	Clinical Information Systems lecturer, BIOINF 2070 Foundations of Biomedical Informatics 1, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2020 – 2021	Instructor, Course Developer, and Director, BIOINF 2071 Foundations of Biomedical Informatics 2 (3 credits), Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2021 – present	Decision Theory lecturer, BIOINF 2071 Foundations of Biomedical Informatics 2, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2023 – present	Probabilistic Reasoning lecturer, BIOINF 2105 Artificial Intelligence for Biomedical Informatics, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2024	Clinical Decision Support lecturer, CMU 10-742: Machine Learning in Healthcare, Machine Learning Department, Carnegie Mellon University
2025 – present	Ethical Issues in Medical Artificial Intelligence lecturer, BIOINF 2070 Foundations of Biomedical Informatics 1, Biomedical Informatics Training Program, University of Pittsburgh School of Medicine
2025	Artificial Intelligence (AI) in Biomedicine lecturer, INTBP 3000 Foundations of Biomedical Science, University of Pittsburgh School of Medicine

Resident Teaching:

1999 – 2000	Neurology Seminars for Residents, Boston University School of Medicine, Boston, MA

Fellow Teaching:

2024	AI in Clinical Medicine lecturer, Clinical Informatics Didactics for Clinical Informatics Fellows, University of Pittsburgh School of Medicine

Curriculum Development / Teaching Products / Media Products:

2008 – 2009	Led the development of inaugural graduate curriculum for the Biomedical Informatics Training Program. The curriculum established core courses in biomedical informatics, research methods, and skills taken by all students and established elective courses for personalization for advanced training.
2008 – 2018	Oversaw changes to the University of Pittsburgh School of Medicine Medical Scientist Training Program (MSTP) curriculum in the Biomedical Informatics Training Program.
2008 – 2014	Oversaw changes to the Intelligent Systems Program (Biomedical Informatics track) curriculum.
2010 – 2019	Developed, directed and taught a core course of the Biomedical Informatics Training Program titled BIOINF 2119 Probabilistic Methods in Artificial Intelligence (3 credits).
2013 – 2014	Developed, directed and taught a core online course of the Biomedical Informatics Training Program titled BIOINF 2011 Foundations of Clinical and Public Health Informatics (Online, 3 credits).
2017 – 2020	Worked with the Director of the Biomedical Informatics Training Program to overhaul the graduate curriculum. The overhaul was designed to achieve three key objectives: (1) emphasize the focus on the development of artificial intelligence (AI) and machine learning (ML) methods, (2) streamline the evaluation processes, and (3) reduce the time to completion of the degree.
2020 – 2022	Developed, directed and taught a core course of the Biomedical Informatics Training Program titled BIOINF 2071 Foundations of Biomedical Informatics 2 (3 credits).
2020 – 2024	Co-hosted the Machine Learning in Medicine Seminar Series featuring prominent investigators developing and applying machine learning to biomedical discovery and clinical decision support.
2023 – present	Co-founded the AI/ML Ethics in Primary Care and Family Medicine Group
2024 – present	Co-founded the Pitt/UPMC GenAI and LLMs Interest Group

Mentoring:

Research Advising:

Primary Research Advisor to the following students in the Certificate Program:

2018 – 2019	Louisa Zhang in Biomedical Informatics; current position: Senior Data Scientist, IDEXX, Westbrook, ME
2018 – 2019	Malarkodi Jebathilagam Samayamuthu in Biomedical Informatics; current position: Senior Research Scientist, Department of Biomedical Informatics, University of Pittsburgh School of Medicine, Pittsburgh, PA

Primary Research Advisor to the following graduate students for the MS degree:

2009 – 2010	Jay Shah, MD, MS (obtained 2010) in Biomedical Informatics; current position: Nephrologist, Nephrology Associates of Central PA, Camp Hill, PA
2009 – 2010	Jonathan Bickel, MD, MS (obtained 2010) in Biomedical Informatics; current position:

	Sr Director IT Clinical Strategic Advisor, Boston Children's Hospital, Boston, MA
2010 – 2012	Nara Um, MD, MS (obtained 2012) in Biomedical Informatics; current position: Deputy Chief Medical Informatics Officer, Federal Electronic Health Record Modernization Office, Arlington, VA
2010 – 2012	Charalampos Floudas, MD, MS (obtained 2012) in Biomedical Informatics; current position: Head of Head and Neck Cancer therapy, Immunotherapy section, NIH, Bethesda, MD
2022 – 2024	Harikesh Subramanian, MBBS (obtained 2023) in Biomedical Informatics; current position: Assistant Professor, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA
2023 – 2024	Rahul Chaudhary, MD, MBA (MS expected 2025) in Intelligent Systems Program; current position: Cardiology Fellow, UPMC, Pittsburgh, PA

Primary Research Advisor to the following graduate students for the PhD degree:

2009 – 2012	Chad Kimmel, PhD (obtained 2012) in Biomedical Informatics; current position: Operations Research Analyst, iO Data Analytics LLC, OH
2009 – 2014	Matthew E. Stokes, MS (obtained 2011), PhD (obtained 2014) in Intelligent Systems Program; current position: Translational Medicine, Bristol Myers Squibb, Summit, NJ
2010 – 2015	Arturo Lopez Pineda, MS (obtained 2012), PhD (obtained 2015) in Biomedical Informatics (co-advisor); current position: CEO, Amphora Health, Morelia, Michoacán, Mexico
2007 – 2016	An-kwok Ian Wong, MS (obtained 2009), PhD (obtained 2016) in Intelligent Systems Program; current position: Assistant Professor of Medicine and Biostatistics & Bioinformatics, Duke University, Cary, NC
2016 – 2018	Joyeeta Dutta-Moscato, MS, PhD (obtained 2018) in Biomedical Informatics; current position: Lead Quality Improvement Analyst, UPMC Health Plan, Pittsburgh, PA
2017 – 2025	Mohammadamin Tajgardoon, MS (obtained 2019), PhD (on leave) in Intelligent Systems Program; current position: Applied Scientist, Amazon Web Services (AWS), Santa Clara, CA
2018 – 2023	Ke Yu, MS (obtained 2020), PhD (obtained 2023) in Intelligent Systems Program; current position: Google
2022 – present	Joshua Anderson, MS in Intelligent Systems Program; current position: doctoral trainee
2024 – present	Nihal Murali, MS in Intelligent Systems Program; current position: doctoral trainee

Primary Research Advisor to the following students in Medical Scientist Training Program (MSTP):

2014 – 2017	Eric V. Strobl, MS (obtained 2011), PhD (obtained 2017) in Biomedical Informatics; current position: Assistant Professor of Biomedical Informatics and Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, PA
2017 – 2021	Adriana Johnson, MS (obtained 2020), PhD (obtained 2021) in Biomedical Informatics; current position: Obstetrics and Gynecology Resident, Tufts Medical Center, Boston, MA
2021 – 2024	Amir Mina, PhD (obtained 2024) in Biomedical Informatics; current position: MSTP

trainee, University of Pittsburgh School of Medicine, Pittsburgh, PA

Primary Research Advisor to the following post-doctoral associates:

2009 – 2010	Xia Jiang, PhD, Post-Doctoral Associate in Biomedical Informatics (co-advisor); current position: Associate Professor, Department of Biomedical Informatics, University of Pittsburgh School of Medicine, Pittsburgh, PA
2009 – 2011	Pablo Hennings-Yeomans, PhD, Post-Doctoral Associate in Biomedical Informatics (co-advisor)
2012 – 2013	Charalampos Floudas, MD, MS, Post-Doctoral Associate in Biomedical Informatics; current position: Head of Head and Neck Cancer therapy, Immunotherapy section, NIH, Bethesda, MD
2012 – 2013	Antonio Ferreira, PhD, Post-Doctoral Associate in Biomedical Informatics (co-advisor)

Primary Research Advisor to high school students:

2011	Edward Nguyen in the University of Pittsburgh Cancer Institute Summer Academy and the Computational and Systems Biology and Biomedical Informatics (CoSBBI) program for high school students
2013	Amy McMillen in the University of Pittsburgh Cancer Institute Summer Academy and the Computational and Systems Biology and Biomedical Informatics (CoSBBI) program for high school students
2017	Shaina Khatri in the University of Pittsburgh Cancer Institute Summer Academy and the Computational and Systems Biology and Biomedical Informatics (CoSBBI) program for high school students

Other Research Mentoring:

2012	MSTP Summer Laboratory Rotation Research Advisor to Eric Strobl, MSTP student
2013	MSTP Summer Laboratory Rotation Research Advisor to Eric Strobl, MSTP student
2015	MSTP Summer Laboratory Rotation Research Advisor to Adriana Johnson, MSTP student
2017	MSTP Summer Laboratory Rotation Research Advisor to Adriana Johnson, MSTP student
2017 – 2020	Informatics mentor to Lorne Walker, MD, PhD, Pediatric Infectious Disease Fellow
2017 – 2018	Informatics mentor to Jonathan Arnold, MD, MSE, Clinical Instructor of Medicine
2018 – 2019	Research Advisor to Chandramouli Ratham, MS, School of Medicine's *Bioengineering, Biotechnology, and Innovation Area of Concentration* (*BBI AOC*) program for medical school students.
2019	Research Rotation Advisor to Eric Strobl, MSTP student
2021 – 2022	Informatics mentor to Harikesh Subramanian, MD, Assistant Professor in Anesthesiology and Perioperative Medicine
2000	MSTP Summer Laboratory Rotation Research Advisor to Amir Mina, MSTP student
2000	MSTP Summer Laboratory Rotation Research Advisor to Michael Leone, MSTP student
2021 – 2022	Informatics mentor to Harikesh Subramanian, MD, Assistant Professor in

	Anesthesiology and Perioperative Medicine
2022	PSTP Summer Laboratory Rotation Research Advisor to Katherine Du, PSTP student
2022	Research Rotation Advisor to Adriana Johnson, MSTP student
2022 – 2023	Informatics mentor to Craig Sewall, PhD, Postdoctoral trainee in Psychiatry
2022 – 2023	Informatics mentor to Rahul Chaudhary, MD, Fellow in Cardiology
2023	PSTP Summer Laboratory Rotation Research Advisor to Harshini Raman, PSTP student
2025	PSTP Summer Laboratory Rotation Research Advisor to Yash Raka, PSTP student

Academic and Career Advising:

Academic Advisor to the following students in Biomedical Informatics Training Program:

2008 – 2015	Richard Wilson, PhD trainee
2009 – 2016	Rick Jordan, PhD trainee
2008 – 2017	Kevin McDade, PhD trainee
2009 – 2014	Danielle Mowery, PhD trainee
2009 – 2013	Marc Clayton, MS trainee
2010 – 2012	Patrice Thorpe Jamison, MS trainee
2010 – 2012	Arturo Lopez Pineda, PhD trainee
2011 – 2012	Jessica Larusch, Certificate trainee
2011 – 2013	Holly Perry Berty, PhD trainee
2011 – 2015	Joyeeta Dutta Mascoto, PhD trainee
2012 – 2013	Reza Sadeghian, MS trainee
2014 – 2015	She Zhang, MS trainee
2014 – 2018	Yuzhe Brian Liu, MSTP & PhD trainee
2015 – 2016	Chandra Rathnam, MS trainee
2015 – 2016	Srilakshmi Chaparala, Certificate trainee
2016 – 2021	Pritika Dasgupta, PhD trainee
2017 – 2022	Brandan Dunham, PhD trainee
2018 – 2019	Olga Kravchenko, Certificate trainee
2024 - present	Semmie Kim, PhD trainee
2025 - present	Ryan Zeh, PhD trainee
2025 - present	Kexin Sun, PhD trainee

Career Advisor to the following students in Medical Scientist Training Program (*MSTP*):

2014 – 2018	Yuzhe Brian Liu, career advisor to MSTP student
2018 – 2024	Amir Mina, career advisor to MSTP student
2020 – 2024	Michael Leone, career advisor to MSTP student
2020 – 2024	Rumana Rashid, career advisor to MSTP student

Career Advisor to the following students in Physician Scientist Training Program (PSTP):

2017 – 2018	Nathan Sisterson, career advisor to PSTP student

Graduate Committees:

Member of the MS Thesis Committee / PhD Preliminary Evaluation of the following graduate students:

2009 Shuguang Wang, MS – Intelligent Systems Program
2010 Rajiv Wadhwa, MD, MS – Biomedical Informatics Training Program
2010 Jian Wang, MS – Biomedical Informatics Training Program
2010 Danielle Mowery, MS – Biomedical Informatics Training Program
2010 Zachary Landis Lewis, MS – Biomedical Informatics Training Program
2010 Saeed Amizadeh, MS – Intelligent Systems Program
2010 Yuriy Sverchkov, MS – Intelligent Systems Program
2012 Jeremy Espino, MD, MS – Intelligent Systems Program
2013 Henry Ogoe, MS – Biomedical Informatics Training Program
2013 Mahdi Pakdaman Naeini, MS – Intelligent Systems Program
2014 Reza Sadeghian, MD, MS – Biomedical Informatics Training Program
2014 Victor Ruiz Herrera, MS – Biomedical Informatics Training Program
2014 John Frazier, MS – Biomedical Informatics Training Program
2015 Andrew King, MS – Biomedical Informatics Training Program
2015 Amie Draper, MS – Biomedical Informatics Training Program
2016 Sergio Castro Diaz, MS – Biomedical Informatics Training Program
2016 Diyang Xue, MS – Intelligent Systems Program
2017 Bryan Andrews, MS – Intelligent Systems Program
2018 Luca Calzoni, MS – Biomedical Informatics Training Program
2019 Mahbaneh Torbati, MS – Intelligent Systems Program
2020 Saba Dadsetan, MS – Intelligent Systems Program
2020 Sanya Taneja, MS – Intelligent Systems Program
2021 Yingci Liu, MS – Biomedical Informatics Training Program
2022 Neil Munjal, MD, MS – Intelligent Systems Program
2023 Sonish Sivarajkumar – Intelligent Systems Program
2023 Nihal Murali – Intelligent Systems Program
2023 Daniel Sokolowski – Biomedical Informatics Training Program
2025 Dani Lavage – Biomedical Informatics Training Program

Member of the Comprehensive Examination Committee of the following graduate students:

2008 Thankam Thyvalikakath – Biomedical Informatics Training Program
2008 Eric Williams – Intelligent Systems Program
2008 Himanshu Grover – Biomedical Informatics Training Program
2010 Richard Wilson – Biomedical Informatics Training Program
2010 Shuguang Wang – Intelligent Systems Program
2011 Hatice Ulku Osmanbeyoglu – Biomedical Informatics Training Program
2011 Zach Landis Lewis – Biomedical Informatics Training Program
2011 Danielle Mowery – Biomedical Informatics Training Program
2012 Kevin McDade – Biomedical Informatics Training Program
2012 Katrina Romagnoli – Biomedical Informatics Training Program

2013 Rick Jordan – Biomedical Informatics Training Program
2013 Yuriy Sverchkov – Intelligent Systems Program
2014 Henry Ogoe – Biomedical Informatics Training Program
2014 Mahdi Pakdaman Naeini – Intelligent Systems Program
2015 Amie Draper – Biomedical Informatics Training Program
2016 Andrew King – Biomedical Informatics Training Program
2016 Victor Ruiz Herrera – Biomedical Informatics Training Program
2016 Gaurav Trivedi – Intelligent Systems Program
2016 Diyang Xue – Intelligent Systems Program
2017 Jeya Balasubramanian – Intelligent Systems Program
2017 Fattaneh Jabbari – Intelligent Systems Program
2017 Sanghoon Lee – Biomedical Informatics Training Program
2018 Luca Calzoni – Biomedical Informatics Training Program
2018 Pritika Dasgupta – Biomedical Informatics Training Program
2022 Saba Dadsetan – Intelligent Systems Program
2022 Ke Yu – Intelligent Systems Program
2023 Sonish Sivarajkumar – Intelligent Systems Program
2024 Shruthi Venkatesh – MSTP & Neuroscience Training Program
2025 Matthew Ragoza – Intelligent Systems Program

Member of the PhD Dissertation Committee of the following graduate students:

2009 Jonathan Lustgarten, PhD – Biomedical Informatics Training Program
2010 Steven M. Handler, MD, PhD – Biomedical Informatics Training Program
2010 Philip Ganchev, PhD – Intelligent Systems Program
2012 Himanshu Grover, PhD – Biomedical Informatics Training Program
2012 Holly Berty, PhD – Biomedical Informatics Training Program
2013 Eric Williams, PhD – Intelligent Systems Program
2014 Danielle Mowery, PhD – Biomedical Informatics Training Program
2014 Yuriy Sverchkov, PhD – Intelligent Systems Program
2015 Ying-Feng Hsu, PhD – School of Information Sciences
2016 Rick Jordan, PhD – Biomedical Informatics Training Program
2016 Henry Ogoe, PhD – Biomedical Informatics Training Program
2016 Lujia Chen, PhD – Biomedical Informatics Training Program
2016 Mahdi Pakdaman Naeini, PhD – Intelligent Systems Program
2018 Andrew King, PhD – Biomedical Informatics Training Program
2018 Yuzhe Brian Liu, PhD – MSTP & Biomedical Informatics Training Program
2019 Victor Ruiz Herrera, PhD – Biomedical Informatics Training Program
2019 Gaurav Trivedi, PhD – Intelligent Systems Program
2019 Jeya Balasubramanian, PhD – Intelligent Systems Program
2019 Amie Barda, PhD – Biomedical Informatics Training Program
2019 Shuguang Wang, PhD (on leave) – Intelligent Systems Program
2020 Yangbing Xue, PhD – Computer Science
2020 Fattaneh Jabbari, PhD – Intelligent Systems Program

2021 Jason B. Colditz – Clinical and Translational Science
2021 Lauren Rost, PhD – Biomedical Informatics Training Program
2022 Jeongmin Lee, PhD – Computer Science
2022 Brandan Dunham, PhD – Biomedical Informatics Training Program
2024 Mahbaneh Eshaghzadeh Torbati – Intelligent Systems Program
2024 Rumana Rashid, PhD – MSTP & Biomedical Informatics Training Program
2025 Hazim Alotaibi, SJD – Doctor of Juridical Science (SJD) Program
2025 Maxwell Reynolds – Biomedical Informatics Training Program
2025 Sonish Sivarajkumar – Intelligent Systems Program
2026 Tran Quoc Bao Tran (expected) – University of Glasgow
2026 Eddie Claudio Perez (expected) – Biomedical Informatics Training Program
2026 Luca Calzoni, PhD (expected) – Biomedical Informatics Training Program
2026 Shruthi Venkatesh (expected) – MSTP & Neuroscience Training Program

Mentee Achievements:

2010, 2011 Chad Kimmel, doctoral student, Biomedical Informatics Training Program, University of Pittsburgh – awarded ICRE Pre-Doctoral Fellowship in Clinical and Translational Research for "Identification of genetic and environmental factors of disease from literature"
2011 An-kwok Ian Wong, doctoral student, Intelligent Systems Program – awarded Scholarship in Medical Student Training in Aging Research (MSTAR) Program
2013 Eric V. Strobl, doctoral student, MSTP – awarded the Best Poster prize for deep learning and causal discovery at the 2013 BMI Training Program Retreat
2013 Matthew Stokes, doctoral student, Intelligent Systems Program – awarded the Best Paper prize at the 2013 BMI Training Program Retreat
2013 Matthew Stokes, doctoral student, Intelligent Systems Program – invited to present his work on "Feature selection for biomarker discovery in genome-wide SNP data" at the meeting of the NLM Board of Regents
2014 Eric V. Strobl, doctoral student, MSTP – awarded the Best Paper prize at the 2014 BMI Training Program Retreat
2017 Eric V. Strobl, doctoral student, MSTP – awarded the Roth Fellowship by Department of Psychiatry, University of Pittsburgh
2018 Eric V. Strobl, doctoral student, MSTP – awarded the Drs. S. Sutton Hamilton MSTP Scholar Award by the MSTP, University of Pittsburgh
2018 Mohammadamin Tajgardoon, doctoral student, Intelligent Systems Program – won first place in the Student Paper Competition at the 2018 AMIA Informatics Summit in the Clinical Research Informatics (CRI) track
2019 Amir Mina, medical student, MSTP – finalist in the 2019 Michael G. Wells Student Healthcare Entrepreneurship Competition, University of Pittsburgh
2020 Mohammadamin Tajgardoon, doctoral student, Intelligent Systems Program – awarded Provost Fellowship in the Intelligent Systems Program, University of Pittsburgh
2023, 2024 Rahul Chaudhary, MS student, Intelligent Systems Program – awarded Clinical Transformation Program grant, The Beckwith Institute, UPMC for "Machine learning based clinical decision support to predict bleeding risk in patients with atrial fibrillation on direct oral anticoagulants"

RESEARCH

Current Grant Support:

Grant Number (funded)	Grant Title	Role in Project % Effort	Years Inclusive	Source $ Amount
UL1 TR001857 NIH/NCATS (Reis)	Informatics Core, Clinical and Translational Science Institute	Director 2.40 calendar	07/01/2016- 05/31/2026	NIH/NCATS $9,265,104 ($6,125,025 directs + $3,140,079 indirects)
OT2 OD026554 NIH (Reis, Visweswaran)	All of Us Pennsylvania (AOU PA) Research Program	PD/PI 1.20 calendar	02/08/2018- 04/30/2026	NIH $2,735,691 ($1,748,714 directs + $986,977 indirects)
U24 TR004111 NIH/NCATS (Reis, Visweswaran)	ENACT: Translating Health Informatics Tools to Research and Clinical Decision Making	PD/PI 2.40 calendar	08/01/2022- 05/31/2027	NIH/NCATS $4,664,452 ($3,558,747 directs + $1,105,705 indirects)
ABFM Foundation (Maier)	Growing Primary Care Informatics using AI/ML to Understand Patients Not Just Diseases	Co-I 0.00 calendar (donated)	09/01/2022- 08/31/2026	ABFM Foundation $500,000 ($490,000 directs + $10,000 indirects)
R01 EB032752 NIH/NIBIB (Hauskrecht, Clermont, Huang)	Learning Alerting Models for Clinical Care from EMR Data and Human Knowledge	Co-I 0.60 calendar	09/30/2022- 06/30/2026	NIH/NIBIB $547,587 (total) ($365,601 directs + $181,986 indirects)
R01 NS098023 NIH/NINDS (Xia)	Leveraging Electronic Health Records to Optimize Treatment	Co-I 0.60 calendar	09/01/2022- 08/31/2027	NIH/NINDS $221,290 (total) ($140,015 directs +81,275 indirects)

	Selection and Response in Multiple Sclerosis			
U01 MH136020 NIH/NIMH (Soehner, Jalbrzikowski, McMakin, Wallace)	The Pediatric Precision Sleep Network	Co-I 0.6 calendar	05/01/2024- 03/31/2029	NIH/NIMH $358,276 (total) ($225,331 directs + $132,045 indirects)
R01 HL141813 NIH/NHLBI (Batmanghelich)	Integrating Multi-Modal Data and Biomechanics in COPD: Toward Robust and Interpretable Biomarkers for Disease Subtyping and Progression	Co-I 0.6 calendar	05/01/2025- 02/28/2030	NIH/NHLBI
R0 LM014588 NIH/NLM (Wang)	ARISE-CARE: Advancing Rehabilitation for Stroke Patients with AI to Elevate Therapy Care	Co-I 0.6 calendar	09/01/2025- 07/01/2029	NIH/NLM

Pending Grant Support:

Grant Number	Grant Title	Role in Project % Effort	Years Inclusive	Source $ Amount
U01 NIH/NCATS (Mandl)	Transforming Clinical Trial Recruitment: AI-Driven Federated Clinical and Genomic Matching with GIC-Recruit	Site PI 0.6 calendar	12/2025 – 11/2030	NIH/NCATS $364,100
UM1 NIH/NCATS (Callaway, Massart, Visweswaran)	University of Pittsburgh Clinical and Translational Science Institute	PD/PI 3.6 calendar	03/01/2026 – 02/28/2033	NIH/NCATS $71,962,022
UM1 NIH/Common Fund (Taylor)	Combining and Integrating Patient Digital Twins and Patient Biomimetic Twins to Create a New Paradigm for Precision Medicine	Co-I 1.2 calendar	12/2025 – 11/2030	UM1 NIH/Common Fund $10,000,000

ARPA-H (Mandl)	ONCE: One Network for Children Everywhere – A Toolkit for Push Button, Self-scaling, Multimodal, Longitudinal, Pediatric Chronic Disease Research	Site PI 0.6 calendar	10/2025 – 09/2028	ARPA-H $563,359

Prior Grant Support:

Grant Number (funded)	Grant Title	Role in Project % Effort	Years Inclusive	Source $ Amount
PCORI (Bailey)	Scope 3: PCORnet Designated Study Consultation and Query and Analytic Tool Development to Enable Multi-network PCORnet Research	Co-I 0.6 calendar	01/01/2023-12/31/2025	PCORI $386,295 (total) ($275,925 directs + $110,360 indirects)
U01 TR002623 NIH/NCATS (Mandl)	Instrumenting the Delivery System for a Genomic Research Information Commons	Co-I 1.20 calendar	07/31/2019-06/30/2025	NIH/NCATS $492,320 ($311,594 directs, $180,725 indirects)
Ministry of Education, India (Satheesh, Ramakrishnan)	Consortium for AI & Remote Digital Interventions Against Cardiovascular disease in India (CARDIAC India)	Consortium Partner 0.00 calendar (donated)	04/01/2024-03/31/2025	Ministry of Education, India
OT2 HL161847 NIH/NHLBI (Haendel)	Post-Acute Sequelae of SARS-CoV-2 Infection Initiative: NYU Langone Health Clinical Science Core, Data Resource Core	Co-I 1.20 calendar	10/01/2021-09/25/2024	NIH/NHLBI $94,000
R01 LM013345 NIH/NLM (Weber)	Biases Introduced by Filtering Electric Health Records for Patients with "Complete Data"	Co-I 0.30 calendar	09/04/2020-08/31/2024	NIH/NLM $147,393

U24 TR002306 NIH/NCATS (Haendel, Chute)	CD2H - National COVID Cohort Collaborative (N3C) Supplement	Co-I 0.36 calendar	07/21/2020- 07/20/2023	NIH/NCATS $63,685
Center for Commercial Applications of Healthcare Data UPMC Enterprises (Thirumala)	Realtime Evaluation for Adverse Events using Intraoperative Neurophysiological Monitoring (READE IONM)	Co-I 1.80 calendar	06/01/2020- 05/31/2022	UPMC Enterprises $396,615
R01 LM012605 NIH/NLM (NCE) (Schleyer)	Enhancing Information Retrieval in Electronic Health Records through Collaborative Filtering	Co-I 0.60 calendar	06/01/2018- 04/30/2022	NIH/NLM $51,537
R01 CA225773 NIH/NCI (Primack)	Leveraging Twitter to Monitor Nicotine and Tobacco-Related Cancer Communication	Co-I 1.20 calendar	03/01/2018- 02/28/2022	NIH/NCI $130,992
UL1 TR001857-01S1 NIH/NCATS (Reis)	ACT (Accrual to Clinical Trials) network	Co-I 1.20 calendar	09/23/2016- 05/31/2021	NIH/NCATS $2,056,667
R35 GM119519 NIH/NIGMS (Seymour)	Sepsis Endotyping Using Clinical and Biological Data	Co-I 0.30calendar	08/02/2016- 05/31/2021	NIH/NIGMS $44,038
R01 LM012095 NIH/NLM (Visweswaran)	Development and Evaluation of a Learning Electronic Medical Record System	PI 4.80 calendar	09/15/2015- 06/30/2020	NIH/NLM $1,303,317 ($884,052 directs + $419,265 indirects)
R35 HL144804 NIH/NHLBI (Kahn)	Organizational Strategies for Improving Evidence-Uptake in Intensive Care	Co-I 1.20 calendar	01/21/2019- 12/31/2019	NIH/NHLBI $35,740
R01 GM088224 NIH/NIGMS (Hauskrecht, Clermont, Cooper)	Detecting Deviations in Clinical Care in ICU Data Streams	Co-I 0.96 calendar	01/01/2014- 11/30/2019	NIH/NIGMS $323,029
U54 HG008540 NIH	Center for Causal Modeling and Discovery	Co-I 1.20 calendar	09/15/2014- 08/31/2019	NIH $142,194

(Cooper, Bahar, Berg)	of Biomedical Knowledge from Big Data			
UG3 OD023153-01S1 NIH (Reis, Visweswaran, Marroquin)	Precision Approach to healthCARE enrollment Site (PA CARES)	PD/PI 1.80 calendar	07/06/2016- 02/07/2018	NIH $941,239 ($612,914 directs + $328,325 indirects)
UL1 TR00005 NIH/NCATS (Reis)	Informatics Core, Clinical and Translational Science Institute	Co-Director 2.40 calendar	07/01/2015- 06/30/2016	NIH/NCATS $252,763
CDRN 1306-04912 PCORI (McTigue)	A PaTH Towards a Learning Health System in the Mid-Atlantic Region	Co-I 1.20 calendar	01/01/2014- 06/30/2016	PCORI $57,362
T15 LM007059 NIH/NLM (Crowley)	Pittsburgh Biomedical Informatics Training Program	Co-I 0.60 calendar	07/01/2012- 06/30/2016	NIH/NLM/NICDR $32,000
UL1 TR00005-09S1 NIH/NLM (Reis)	CTS Acts (Clinical and Translational Science Accrual to Clinical Trials)	Co-I 3.00 calendar	07/01/2014- 06/30/2015	NIH/NCATS $286,411
R01 GM100387 NIH/NIGMS (Gopalakrishnan)	Transfer Rule Learning for Knowledge Based Biomarker Discovery and Predictive Biomedicine	Co-I 2.40 calendar	07/01/2012- 06/30/2015	NIH/NIGHMS $28,042
R01 LM010950 NIH/NLM (Gopalakrishnan)	Bayesian Rule Learning Methods for Disease Prediction and Biomarker Discovery	Co-I 1.20 calendar	08/15/2011- 06/30/2015	NIH/NLM $30,886
W81XWH-11-0133 DOD (Dunn)	Framework for Smart Electronic Health Record-Linked Predictive Models to Optimize Care for Complex Digestive Diseases	Co-I 2.40 calendar	07/01/2010- 06/30/2014	DOD $85,911
HHSN 276201000030C NIH/NLM	Optimal Influenza Vaccine Strain Selection	PI 3.00 calendar	09/27/2010- 09/26/2012	NIH/NLM $299,901

(Visweswaran) (funding from the American Recovery and Reinvestment Act (ARRA))				($197,955 directs + $101,946 indirects)
T15 LM007059-24S1 NIH/NLM (Crowley)	Pittsburgh Biomedical Informatics Training Program NLM 2010 Curriculum Supplement	Co-I 0.60 calendar	07/01/2010-06/30/2011	NIH/NLM/NIDCR $216,000

Other Research Related Activities:

Patents and Copyrights issued:

1. **Visweswaran S**. A Rule-Based Expert System to Detect Adverse Drug Reactions in the Nursing Home Setting. Copyright protection awarded by the University of Pittsburgh on 18 October 2007. Pitt Ref No. 01586.
2. Hochheiser HS, **Visweswaran S**, Trivedi G, Hong C, Handzel R, Dadashzadeh E. Automation of Useful Secondary Findings from Radiology and Pathology Reports. Copyright protection awarded by the University of Pittsburgh on 9 November 2018. Pitt Ref No. 04737.
3. Lu X, Cai C, Cooper GF, **Visweswaran S**. Identification of Somatic Gene Alterations with Functional Impact. US Patent No. US 11990209. Issued: 21 May 2024.

Invention Disclosures and Patent Applications:

1. Bhavnani SK, Bassler KE, **Visweswaran S**. Computer-Implementable Algorithms for Biomarker Discovery Using Bipartite Networks. Application filed with the United States Patent and Trademark Office on 14 March 2013. US Patent No. US20130245959A1. Status: abandoned.
2. Hauskrecht M, Cooper GF, Clermont G, **Visweswaran S**. A System for Alerting on Unusual Patient-Care Management Based on Machine Learning of Usual Patient-Care Management. Invention disclosure application filed with the University of Pittsburgh on 24 November 2014. Pitt Ref No. 03454.
3. **Visweswaran S**, Cooper GF, Hochheiser HS, King AJ. Learning Electronic Medical Record System. Invention disclosure application filed with the University of Pittsburgh on 23 July 2015. Pitt Ref No. 03676.
4. Thirumala P, Mina A, **Visweswaran S**. Realtime Evaluation for Adverse Events using Intraoperative Neurophysiological Monitoring (READE IONM). Invention disclosure application filed with the University of Pittsburgh on 7 April 2019. Pitt Ref No. 04944.
5. Triantafyllou S, **Visweswaran S**. THRESHOLD: Improving treatment guidelines with regression discontinuity designs. Invention disclosure application filed with the University of Pittsburgh on 18 April 2019. Pitt Ref No. 04963.

6. Hauskrecht M, Clermont G, Cooper GF, Malakouti S, Hong C, Luo Z, Barren MP, Liu S, **Visweswaran S**. Real-time Clinical Monitoring and Alerting System. Invention disclosure application filed with the University of Pittsburgh on 15 May 2019. Pitt Ref No. 04995.
7. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Intraoperative Electroencephalogram (EEG) Data Parser Tool. Invention disclosure application filed with the University of Pittsburgh on 21 July 2021. Pitt Ref No. 05767.
8. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Machine Learning Development and Application for Real-Time Detection of Ischemia and Stroke During Surgery. Invention disclosure application filed with the University of Pittsburgh on 23 July 2021. Pitt Ref No. 05769.
9. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Intraoperative Electroencephalogram (EEG) Display Tool. Invention disclosure application filed with the University of Pittsburgh on 19 May 2022. Pitt Ref No. 06032.
10. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Code for Intraoperative Electroencephalogram (EEG) Data Parser Tool. Invention disclosure application filed with the University of Pittsburgh on 19 May 2022. Pitt Ref No. 06033.
11. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Code for Machine Learning Development and Application for Real-Time Detection of Ischemia and Stroke During Surgery. Invention disclosure application filed with the University of Pittsburgh on 19 May 2022. Pitt Ref No. 06034.
12. **Visweswaran S**, Thirumala PD, Batmanghelich K, Espino JU. Code for Intraoperative Electroencephalogram (EEG) Display Tool. Invention disclosure application filed with the University of Pittsburgh on 20 May 2022. Pitt Ref No. 06037.
13. **Visweswaran S**, Espino JU, Batmanghelich K, Thirumala PD, Mina A. Machine Learning Techniques for Detecting Reduced Blood Flow Conditions. Application filed with the United States Patent and Trademark Office on 9 September 2022. Application No. PCT/US2022/043085.
14. Subramanian H, **Visweswaran S**. Anesthesia Induction Tool. Invention disclosure application filed with the University of Pittsburgh on 1 December 2022. Pitt Ref No. 06234.
15. **Visweswaran S**, Espino JU, Batmanghelich K, Thirumala PD, Mina A. Machine Learning Techniques for Detecting Reduced Blood Flow Conditions. Application filed with the United States Patent and Trademark Office on 9 September 2022. US Patent No. US 2023/0080348 A1. Publication date: 16 March 2023.
16. Reis SE**, Visweswaran S**, Mathias D. A Dynamic Medical Educational Platform Based on Synthetic Patient Data. Invention disclosure application filed with the University of Pittsburgh on 29 November 2023. Pitt Ref No. 06579.
17. Mina A, **Visweswaran S**, Batmanghelich K, Automated Algorithm for Detecting Burst Suppression in EEG. Invention disclosure application filed with the University of Pittsburgh on 4 April 2024. Pitt Ref No. 06725.
18. Subramanian H, **Visweswaran S**. Computational-Based Predictions of Post-Induction Hypotension. Application filed with the United States Patent and Trademark Office on March 21, 2025. Application No. PCT/US25/20894. Priority Claim: U.S. Provisional Application No. 63/568,570, filed March 22, 2024.

Companies:

2018 – present Co-founder of Kvatchii, Inc., UK
2021 – present Co-founder of READE.ai, Inc., USA
2023 – present Chief Medical Officer, ThetaRho, Inc., USA

Journal Editorial Boards:

2007 – present International Journal of Medical Engineering and Informatics
2017 – present Artificial Intelligence in Medicine
2020 – present Journal of Biomedical Informatics
2024 – present npj Digital Medicine

Journal Special Issue Editorship:

2021 Best practices in research patient data repositories in the Journal of the American Medical Informatics Association
2023 Special issue on fairness and inclusion in biomedical informatics research: technical and social perspectives in the Journal of Biomedical Informatics

Journal Refereeing:

2005 – present	Artificial Intelligence in Medicine
2007	PLoS Medicine
2009	IEEE Transactions on Information Theory
2009 – 2013	Computers in Biology and Medicine
2009 – 2010	PLoS Computational Biology
2010 – 2015	Medical Decision Making
2010 – 2022	PLoS ONE
2011	Science Translational Medicine
2011 – present	Journal of Biomedical Informatics
2012	IIE Transactions on Healthcare Systems Engineering
2012	Annals of Neurology
2012 – 2013	Statistics in Medicine
2012 – present	Journal of the American Medical Informatics Association
2013	Journal of Pathology Informatics
2013 – 2015	PeerJ
2014 – present	Applied Clinical Informatics
2015	Translational Medicine
2018	Learning Health Systems
2019 – 2022	Journal of Medical Internet Research
2020, 2022	Nature Medicine
2020	Nature Communications
2022	IMIA Yearbook of Medical Informatics

Conference Refereeing:

2006	Conference on Uncertainty in Artificial Intelligence
2007 – present	AMIA Annual Symposium
2011	International Joint Conference on Artificial Intelligence
2011	AMIA Summit on Translational Bioinformatics
2011, 2015	Conference on Artificial Intelligence in Medicine (AIME)
2012 – present	AMIA Informatics Summit
2012	International Conference on Machine Learning (ICML)
2013	Twenty-Seventh Conference on Artificial Intelligence (AAAI-13)
2013 – 2014	The IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
2019 – 2022	AMIA Clinical Informatics Conference
2019 – 2021	IEEE International Conference on Healthcare Informatics (ICHI)

Study Section Memberships:

2023 – present	NIH, Standing Panel Member, Clinical Informatics and Digital Health (CIDH) Study Section

Extramural Grant Reviewing:

2010	Reviewer, Medical Research Council, London, UK
2011	NSF, Reviewer, Smart Health and Wellbeing Review Panel
2012	NSF, Reviewer, Smart Health and Wellbeing Review Panel
	Reviewer, University of Pittsburgh, Small Grants Program, Central Research Development Fund
2016	NSF, External Reviewer, CISE Research Initiation Initiative (CRII)
	NIH, *Ad hoc* Reviewer, Precision Medicine Review Meeting, Special Emphasis Panel ZTR1-SRC-99
2018	NSF, *Ad hoc* Reviewer, NSF CAREER Panel P190145
	NIH, *Ad hoc* Reviewer, NLM Special Emphasis Panel ZLM1 ZH-C (01)
	NIH, *Ad hoc* Reviewer, NLM Special Emphasis Panel ZLM1 YW-C (01)
	NIH, *Ad hoc* Reviewer, NIBIB Special Emphasis Panel ZEB1 OSR-E (J1) S
2019	NIH, *Ad hoc* Reviewer, NLM Special Emphasis Panel ZLM1 YW-C (01)
	NIH, *Ad hoc* Reviewer, NCATS Biomedical Data Translator: Development
2020	NIH, *Ad hoc* Reviewer, NLM Special Emphasis Panel ZLM1 YW-C (01)
	NIH, *Ad hoc* Reviewer, NIGMS Special Emphasis Panel ZGM1 TWD-9-KR
	NIH, *Ad hoc* Reviewer, NIGMS Special Emphasis Panel ZRG1 HDM-E-90
	NIH, *Ad hoc* Reviewer, NLM Emergency Awards: RADx-rad Data Coordination Center (U24) ZRG1 BST-W-50
2021	NIH, *Ad hoc* Reviewer, NIAID Special Emphasis Panel ZAI1-IS-W (S2) Emergency Awards: Rapid Investigation of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and Coronavirus Disease 2019 (COVID-19)
	NIH, *Ad hoc* Reviewer, NLM Special Emphasis Panel ZLM1 LT-C (01)
	NIH, *Ad hoc* Reviewer, Neurological, Aging and Musculoskeletal Epidemiology (NAME) Study Section

2022 NIH, *Ad hoc* Reviewer, NLM COI-K99-CURATION/R01 ZLM1 RV-C(01)
NIH, *Ad hoc* Reviewer, NLM G08 Special Emphasis Panel 2022/05 ZLM1 JL-G (01)
NIH, *Ad hoc* Reviewer, 2022/10 Clinical Informatics and Digital Health (CIDH) Study Section

2023 NIH, *Ad hoc* Reviewer, NLM COI-R01-G08-R13/R01 ZLM1 RV-C(01)
NIH, *Ad hoc* Reviewer, 2023/08 ZRG1 IVBH-A (50) R - Enhancing the Use of the All of Us Research Program's Data

2024 RAND Health Care, External Reviewer, Report on Algorithmic Fairness by Medicare Advantage Plans for Needs Assessment and Claims Adjudication

Press:

2012 Savage N. Better Medicine Through Machine Learning. Communications of the ACM (Vol. 55 No. 1, January 2012)

2012 Powerful new method to analyze genetic data. Science Daily (12 June 2012) http://www.sciencedaily.com/releases/2012/06/120612115944.htm

2013 Miksch J. A computer guy's take on personalized medicine. PittMed, University of Pittsburgh School of Medicine Magazine (Summer 2013)

2016 Pitt Receives Prestigious NIH Award to Support Development of Million-Person Precision Medicine Study. University of Pittsburgh Health Sciences Media Relations.

2018 One Million Wanted: Pitt, UPMC To Recruit PA Residents For National Study. 90.5 WESA. Pittsburgh's NPR News Station http://wesa.fm/post/one-million-wanted-pitt-upmc-recruit-pa-residents-national-study#stream/0

2018 'All of Us' Million Person Precision Medicine Initiative Launches, Seeks Volunteers. University of Pittsburgh Health Sciences Media Relations.

2021 Gidwani K. Artificial Intelligence in the Medical Field. The Pitt Pulse. Volume XI, Issue 3. http://www.thepittpulse.org/artificial-intelligence-in-the-medical-field

2022 AI & ML in Healthcare Symposium Highlights Pittsburgh's Potential. https://www.jhf.org/news-blog-menu/entry/ai-ml-in-healthcare-symposium-highlights-pittsburgh-s-potential

2024 Aubele M and Doerfler A. Not just neighbors. PittMed, University of Pittsburgh School of Medicine Magazine (Winter 2023/24)

2024 Lindley S. Faculty snapshots. PittMed, University of Pittsburgh School of Medicine Magazine (Summer 2024)

2024 Kennedy S. Advancing transparency, fairness in AI to boost health equity. Xtelligent Health Analytics (9 July 2024). https://www.techtarget.com/healthtechanalytics/feature/Advancing-transparency-fairness-in-AI-to-boost-health-equity

2024 Palmer K and McFarling UL. Doctors use problematic race-based algorithms to guide care every day. Why are they so hard to change? STAT News (3 September 2024). https://www.statnews.com/2024/09/03/embedded-bias-investigation-health-equity-clinical-algorithms/

2024 Parker JM and McFarling UL. Race-based Algorithms Database. Explore the clinical tools that use race to steer care. STAT News (3 September 2024).

https://www.statnews.com/2024/09/03/embedded-bias-searchable-database-race-based-clinical-algorithms/

2024 Clinical AI Forum takes participants beyond the algorithm towards implementing clinical AI in healthcare. Centre for Digital Transformation of Health (4 September 2024). https://mdhs.unimelb.edu.au/digitalhealth/news-and-events/clinical-ai-forum-takes-participants-beyond-the-algorithm-towards-implementing-clinical-ai-in-healthcare

2024 Together to Catalyze Change for Racial Equity in Clinical Algorithms. A meeting sponsored by the Doris Duke Foundation, the Council of Medical Specialty Societies, and the National Academy of Medicine (23 October 2024). https://issuu.com/jpeterson2022/docs/11348_cmss_report_v3_b27474466f165a

LIST of CURRENT RESEARCH INTERESTS

1. Artificial intelligence-enabled clinical decision support
2. Generalizability in clinical algorithms
3. Patient-specific modeling
4. Causal discovery from biomedical data
5. Research data warehousing
6. Ontology development

INVITED SEMINARS AND LECTURESHIPS

Local Presentations:

08/2003 **Visweswaran S**. Adverse drug events detection in discharge summaries. Presentation at the *Faculty and Trainees Poster Session: Sampler of Key Research Areas*. *Pittsburgh Biomedical Informatics Training Program Annual Retreat*. University of Pittsburgh, Pittsburgh, PA.

01/2006 **Visweswaran S**. Patient-specific models for predicting the outcomes of patients with community acquired pneumonia. Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

09/2008 **Visweswaran S**. Personalized medicine in the era of genomics. Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

09/2011 **Visweswaran S**. Patient-specific modeling. Presentation at the *Intelligent Systems Program (ISP) AI Seminar*. University of Pittsburgh, Pittsburgh, PA.

09/2013 **Visweswaran S**. Genomics: Current and future. Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

08/2015 **Visweswaran S**. Building the Accrual of patients to Clinical Trials (ACT) network. Presentation at the *Pittsburgh Biomedical Informatics Training Program Annual Retreat*. University of Pittsburgh, Pittsburgh, PA.

02/2016 **Visweswaran S**. Personalized modeling for prediction with decision-path models. Presentation at the *Critical Care Medicine Weekly Research Conference*. University of Pittsburgh, Pittsburgh, PA.

05/2016 **Visweswaran S**. Interoperability, Health Information Exchanges and Clinical Data Research Networks. Presentation at the *Big Data and Healthcare Analytics – A Path to Personalized Medicine*. University of Pittsburgh, Pittsburgh, PA.

10/2016 **Visweswaran S**. The Precision Medicine Initiative and personalized modeling for precision medicine. Presentation at the *Spotlight Session 5: Personalized and Precision Medicine, Science 2016*. University of Pittsburgh, Pittsburgh, PA.

10/2016 **Visweswaran S**. The Precision Medicine Initiative and personalized modeling for precision medicine. Presentation at the *Health Services Research Seminar*. University of Pittsburgh, Pittsburgh, PA.

11/2016 **Visweswaran S**. Center for Causal Discovery (CCD) of Biomedical Knowledge from Big Data. Presentation at the *q-Bio event: Celebrating Pittsburgh's Biomedical Modeling Community*. University of Pittsburgh, Pittsburgh, PA.

03/2017 **Visweswaran S**. Artificial intelligence in medicine. Presentation at the *University of Pittsburgh Medical Scientist Training Program Workshop*. University of Pittsburgh, Pittsburgh, PA.

10/2017 **Visweswaran S**. Reuse of electronic medical record (EMR) data. Presentation at the *Spotlight Session 2: Big Data, Machine Learning, and Artificial Intelligence, Science 2017*. University of Pittsburgh, Pittsburgh, PA.

04/2018 **Visweswaran S**. Developing patient-specific predictive models. Presentation at the *CRISMA Biostatistical and Data Management Core Speaker Series*. University of Pittsburgh, Pittsburgh, PA.

05/2018 **Visweswaran S**. Development of a Learning Electronic Medical Record system. Presentation at the *Department of Neurology Grand Rounds Series*. University of Pittsburgh, Pittsburgh, PA.

09/2018 **Visweswaran S**. A Learning Electronic Medical Record (LEMR) system to selectively highlight patient information. Presentation at the *Biostatistics and DBMI Joint Mini-Retreat*. University of Pittsburgh, Pittsburgh, PA.

12/2018 **Visweswaran S,** Silverstein J. The Center for Clinical Research Informatics (CCRI) & the Research Informatics Office (RIO). Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

10/2019 Becich MJ, Silverstein J, **Visweswaran S**. Data Sharing Networks supported by Neptune and R3: Roadmap for Access for Your Research. Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

03/2021 **Visweswaran S**. Artificial Intelligence in Clinical Medicine. Presentation at the *SCI-DBMI-ISP Faculty Retreat*. University of Pittsburgh, Pittsburgh, PA.

11/2021 **Visweswaran S**. A learning electronic medical record system for identifying relevant patient data. Presentation at the *Biomedical Informatics Colloquium Series*. University of Pittsburgh, Pittsburgh, PA.

05/2022 **Visweswaran S**. A learning EMR system towards improving patient safety. Presentation at the *Artificial Intelligence/Machine Learning in Healthcare - Fostering Academic Partnerships with the DoD & Industry*. University of Pittsburgh, Pittsburgh, PA.

01/2024 **Visweswaran S**. Towards deployment of AI-based clinical decision support. Presentation at the *Dean's Spotlight Series 2024*. School of Computing and Information. University of Pittsburgh, Pittsburgh, PA.

09/2024 **Visweswaran S.** Artificial intelligence in clinical care. Presentation at the *Medicine Grand Rounds*. Department of Medicine. University of Pittsburgh, Pittsburgh, PA.

03/2025 Wu S, **Visweswaran S**, Palmer O, Fischer G. Responsible AI in healthcare; hopes and hypes. Panel discussion at the *Pitt AI in Healthcare Research Symposium*. University of Pittsburgh, Pittsburgh, PA.

Regional Presentations:

10/2005 **Visweswaran S**. Patient-specific predictive modeling. Presentation at the *Machine Learning Lunch Seminar*. Carnegie Mellon University, Pittsburgh, PA.

11/2017 **Visweswaran S**. A learning electronic medical record system: Providing decision support using machine learning. Presentation at the *STEM Junction Symposium*. Fox Chapel Area High School, Pittsburgh, PA.

09/2019 Ford D, Becich MJ, **Visweswaran S**, Williams D. PaTH Panel: Processes/resources from other networks and thoughts on how to leverage them. *PaTH Face-to-Face Meeting*. University of Pittsburgh, Pittsburgh, PA.

National Presentations:

11/2003 **Visweswaran S**, Hanbury P, Saul M, Cooper GF. Detecting adverse drug events in discharge summaries using variations on the simple Bayes model. Paper presentation at the *AMIA Annual Symposium*. Washington, DC.

06/2004 **Visweswaran S**. Learning patient-specific models for predicting outcomes under uncertainty. Presentation at the *NLM Informatics Training Conference*. Indianapolis, IN.

12/2004 **Visweswaran S**, Cooper GF. Instance-specific Bayesian model averaging for classification. Poster presentation at the *Advances in Neural Information Processing Systems*. Vancouver, Canada.

10/2005 **Visweswaran S**, Cooper GF. Patient-specific models for predicting the outcomes of patients with community acquired pneumonia. Paper presentation at the *AMIA Annual Symposium*. Washington, DC.

11/2009 **Visweswaran S**, Wong AI, Barmada MM. A Bayesian method for identifying genetic interactions. Paper presentation at the *AMIA Annual Symposium*. San Francisco, CA.

11/2010 **Visweswaran S**, Mezger J, Clermont G, Hauskrecht M, Cooper, GF. Identifying deviations from usual medical care using a statistical approach. Paper presentation at the *AMIA Annual Symposium*. Washington, DC.

08/2013 **Visweswaran S**. Genomics: Current and future. Presentation at the *Scientific Session of the Fourteenth Biennial JIPMER Alumni Association of North America (JAANA) Meet*. Boston, MA.

07/2014 **Visweswaran S**. Patient-specific prediction with decision-path models. Presentation at the *University Showcase, NLM Informatics Training Conference*. University of Pittsburgh, Pittsburgh, PA.

10/2014 **Visweswaran S**. Data Harmonization Work Group Presentation. Presentation at the *Accrual to Clinical Trials (ACT) Wave 1 Face to Face Meeting*. Hilton Chicago O'Hare Airport, Chicago, IL.

06/2015 **Visweswaran S**. Data Harmonization Work Group Presentation. Presentation at the *Accrual to Clinical Trials (ACT) Data Harmonization Face to Face Meeting*. Hilton Chicago O'Hare Airport, Chicago, IL.

03/2016 **Visweswaran S**, Tenenbaum J, Gouripeddi R. Secondary use of data for research - EHR, omics and environmental data. Panel presentation at the *AMIA Joint Summits on Translational Science*. San Francisco, CA.

04/2017 **Visweswaran S**. Data Harmonization Work Group Update. Presentation at the *Accrual to Clinical Trials (ACT) Data Harmonization Face to Face Meeting*. Omni Shoreham Hotel, Washington, DC.

10/2017 Borromeo C, **Visweswaran S**. Data Harmonization Work Group Update. Presentation at the *Accrual to Clinical Trials (ACT) Data Harmonization Face to Face Meeting*. University of California San Diego, San Diego, CA.

11/2017 Bhavnani SK, Ayyaswamy A, Chen T, **Visweswaran S**, Bellala G, Bassler KE. Vicinity exploration: Enabling user-driven visual search of multiple machine learning models for precision medicine. System demonstration at the *AMIA Annual Symposium*. Washington, DC.

04/2018 MacFadden D, Trevvett P, **Visweswaran S**, Morris M. Understanding ACT Data: What do my Query Results Mean? Presentation at the *Accrual to Clinical Trials (ACT) Data Harmonization Face to Face Meeting*. Omni Shoreham Hotel, Washington, DC.

05/2018 Tajgardoon, M, **Visweswaran S**. Patient-specific explanations from risk prediction models. Presentation at the *AMIA 2018 Clinical Informatics Conference*. Scottsdale, AZ.

05/2018 **Visweswaran S**. Developing a Learning Electronic Medical Record system. Presentation at the *AMIA 2018 Clinical Informatics Conference*. Scottsdale, AZ.

03/2019 **Visweswaran S**, Murphy SN, MacFadden D, Anderson NR. Accrual to Clinical Trials (ACT): A Clinical and Translational Science Award Consortium network. Late Breaking Panel presentation at the *AMIA Joint Summits on Translational Science*. San Francisco, CA.

05/2019 **Visweswaran S**. Using eye-tracking to support a Learning Electronic Medical Record system. Presentation at the *AMIA 2019 Clinical Informatics Conference*. Atlanta, GA.

06/2019 **Visweswaran S**. A Learning Electronic Medical Record system to highlight relevant patient information. Presentation at the *Un-Meeting: Machine Learning & Artificial Intelligence Applications in Translational Science*. Rochester, NY.

09/2019 **Visweswaran S**. Application of machine learning to highlight relevant patient information in the EMR. Presentation at *HIDS 501: Introduction to Health Data Science & Analytics*. Georgetown University, Washington, DC.

10/2019 **Visweswaran S**. Promise and potential of machine learning and Electronic Health Records to transform healthcare. Keynote speaker at *AI in Healthcare Conference*. Penn State College of Medicine, Hershey, PA.

10/2019 **Visweswaran S**. Artificial intelligence in medicine. Presentation at the *Principles and Practice of Intraoperative Neuromonitoring* course. University of Pittsburgh, Pittsburgh, PA.

10/2019 **Visweswaran S**. Machine learning to highlight relevant patient information in the EMR. Presentation at the *19th General Meeting of the Health Services Platform Consortium (HSPC)* and the *Clinical Information Interoperability Council (CIIC)*. University of Pittsburgh, Pittsburgh, PA.

11/2019 Bhavnani S, Clark C, Kummerfeld E, Penton R, **Visweswaran S**. Team-centered informatics: A necessary adaptation to translational and implementation science? Panel presentation at the *AMIA Annual Symposium*. Washington, DC.

11/2019 Campion T, Carroll R, Grand J, Natarajan K, **Visweswaran S**. Curating EHR data in the All of Us Research Program. Panel presentation at the *AMIA Annual Symposium*. Washington, DC.

03/2020 **Visweswaran S** (Chair), Liu M, Manukonda P. Research Data Warehousing (RDW) Panel. Panel presentation at the *CTSA Informatics Virtual Meeting*.

05/2020 Nadler L, MacFadden, D, **Visweswaran S**, Murphy SN. Using the ACT network to gain insight into COVID-19. Presentation at the *AMIA COVID-19 Webinar Series*.

05/2020 Walker LW, Norwalk AJ, **Visweswaran S**. Machine learning predicts catheter salvage in pediatric central line-associated bloodstream infection. Presentation at the *AMIA 2020 Virtual Clinical Informatics Conference*.

06/2020 MacFadden D, **Visweswaran S**, Murphy SN. Introduction to ACT and the ACT COVID Network. Presentation at the *i2b2 tranSMART Foundation's 2020 Harvard Virtual Conference*.

06/2020 Sendro E, **Visweswaran S**, Morris M, Klann JG, Murphy SN. ACT COVID Work. Presentation at the *i2b2 tranSMART Foundation's 2020 Harvard Virtual Conference*.

10/2020 **Visweswaran S**. A learning electronic medical record system for identifying relevant patient data. Presentation at *HIDS 501: Introduction to Health Data Science & Analytics*. Georgetown University, Washington, DC.

11/2020 Winkelstein P, Weiner M, Murphy SN, **Visweswaran S**, Harper J. Real world evidence panel - Where is it leading clinical research? Panel presentation at *the Virtual IT Roundtable*.

11/2020 **Visweswaran S.** Artificial intelligence in medicine and IONM. Presentation at the *Principles and Practice of Intraoperative Neuromonitoring* course. University of Pittsburgh, Pittsburgh, PA.

04/2021 Firestein G, **Visweswaran S**. The power of data networks. Presentation at the *2021 Informatics Seminar Series*. School of Medicine and Public Health. University of Wisconsin–Madison, Madison, WI.

04/2021 **Visweswaran S**. COVID-19 application ontology for ACT network. Lightening presentation at the *2021 Spring CTSA Program Group Meetings*.

06/2021 **Visweswaran S**. Meeting the challenge of i2b2 ontology deployment for the COVID-19 pandemic: ACT COVID-19 ontology. Presentation at the *i2b2 tranSMART Foundation's 2021 Harvard Virtual Conference*.

07/2021 **Visweswaran S**. Accrual to Clinical Trials (ACT) and COVID-19 ontology. Virtual presentation at the *Informatics Seminar*. Beth Israel Deaconess Medical Center, Boston, MA.

10/2021 **Visweswaran S**. A learning electronic medical record system for identifying relevant patient data. Presentation at *HIDS 501: Introduction to Health Data Science & Analytics*. Georgetown University, Washington, DC.

11/2021 **Visweswaran S.** Artificial intelligence in medicine and IONM. Presentation at the *Principles and Practice of Intraoperative Neuromonitoring* course. University of Pittsburgh, Pittsburgh, PA.

03/2022 Klann J, Handerson D, **Visweswaran S**, Estiri H, Murphy SN. Ensuring quality: a core competency of federated EHR data networks. Panel presentation at the *AMIA Informatics Summit*. Chicago, IL.

03/2022 **Visweswaran S,** Morris M**.** Want to identify cohorts seamlessly across data models? Try ACT. Ignite talk at the *AMIA Informatics Summit*. Chicago, IL.

06/2022 **Visweswaran S.** Research data warehouse & informatics services at Pitt/UPMC. Presentation to the *EDW4R Working Group, CTSA*. (virtual)

09/2022 **Visweswaran S**, Morris M, Klann, J, Sendro Gano E. ENACT Working Group. Presentation at the *i2b2 tranSMART Foundation's 2022 Harvard Symposium*. Boston, MA.

10/2022 **Visweswaran S**. Data to information: computational models and analytic methods. Presentation at *Mental Health Informatics course*. University of San Francisco, San Francisco, CA.

11/2022 Harle HA, Meeker D, **Visweswaran S**, Campion TR, Knosp BM. Delivering real world patient data for clinical and translational research: approaches from four institutions. Panel presentation at the *AMIA Fall Symposium*. Washington, DC.

09/2023 **Visweswaran S**. Use Cases: ENACT. Presentation at the *2023 Spring CTSA Program Group Meetings*. Washington, DC.

05/2023 **Visweswaran S**. ACT to ENACT: Moving from cohort discovery to research. Presentation at the *COVID AI Meeting*. Boston, MA.

09/2023 **Visweswaran S** and Klann J. Next Generation ENACT network. Presentation at the *i2b2 tranSMART Foundation's 2023 Harvard Symposium.* Boston, MA.

10/2023 **Visweswaran S**. Development of clinical decision support at an academic medical center. Presentation at the *HOBI Grand Rounds*. University of Florida College of Medicine, Gainesville, FL.

10/2023 Rose C, **Visweswaran S**, Wu S, Wu Y, Wang Y. ChatGPT for medicine: exploring the journey from the past to the present, and beyond. Panel at the *IEEE-EBMS International Conference on Biomedical and Health Informatics*. Pittsburgh, PA.

11/2023 **Visweswaran S**, Bertino J, Ashar U, Chee F. The future of healthcare in a world of AI. Panel at the *2023 Tech Ethics Symposium*. Carl G. Grefenstette Center for Ethics in Science, Technology, and Law, Duquesne University. Pittsburgh, PA.

02/2024 **Visweswaran S.** Racial fairness in clinical algorithms. Presentation at the *ACMI 2024 Symposium*. Waikoloa Beach, HI.

03/2024 Ogunyemi O, **Visweswaran, S**, Fernandes C, Comeau D, Shah M, Costello J. Fairness and bias in artificial intelligence. Panel presentation at the *AMIA Informatics Summit*. Boston, MA.

03/2024 Wen A, Sohn S, **Visweswaran S**, Wang Y, Liu H. On federated development and deployment of post-market active surveillance for medical device safety: a discussion on opportunities and challenges. Panel presentation at the *AMIA Informatics Summit*. Boston, MA.

04/2024 **Visweswaran S**. Racial fairness in clinical algorithms. Presentation at the *Summit on Advancing Precision in Health Assessment*. National Academy of Neuropsychology. Denver, CO.

05/2024 Wang Y, **Visweswaran S**, Kapoor S, Kooragayalu S, Wu X. Transforming ChatGPT into a superior decision support tool by embedding clinical practice guidelines. Presentation at the *AMIA 2024 Clinical Informatics Conference*. Minneapolis, MN.

05/2024 **Visweswaran S**, Sadhu EM, Morris M, Tidd S. An open-source tool for generating realistic and anonymized synthetic patient records for research. Presentation at the *AMIA 2024 Clinical Informatics Conference*. Minneapolis, MN.

06/2024 Matthews K, Hernandez-Boussard T, Anderson B, **Visweswaran S**. Advances in artificial intelligence / machine learning to mitigate harm. Panel presentation at the CMSS convening *Together to Catalyze Change for Racial Equity in Clinical Algorithms*. Washington, DC.

06/2024 **Visweswaran S** and Klann J. Next Generation ENACT network. Presentation at the *i2b2 tranSMART Foundation's 2024 Harvard Symposium.* Boston, MA.

09/2024 **Visweswaran S**. Generating Synthetic Electronic Health Record Data. Presentation at the *Virtual OHRP Research Community Forum: Collaboration, Community and Connection*. Pittsburgh, PA.

03/2025 Celi L, Hochheiser H, **Visweswaran S**, Horvat C. A Datathon for Exploring Potential Biases in Medical Artificial Intelligence. Collaborative workshop at the *AMIA Informatics Summit*. Pittsburgh, PA.

03/2025 Wang Y, Fu S, Heider P, Harris D, Morris M, **Visweswaran S**. Incorporating Natural Language Processing within a Large National Network: Current State of ENACT NLP Working Group. Panel presentation at the *AMIA Informatics Summit*. Pittsburgh, PA.

03/2025 Zhang Y, Draugelis M, Aphinyanaphongs Y, **Visweswaran S**, Overgaard S. AI Evaluation Showcase Invited Session: Evaluating Artificial Intelligence to Enable Patient Care. Panel presentation at the *AMIA Informatics Summit*. Pittsburgh, PA.

03/2025 Mora N, **Visweswaran S**, Kravchenko O. Trends in Postpartum Hemorrhage Prevalence and Comorbidity Burden Among Women. Presentation at the *ENACT Grand Rounds*. Pittsburgh, PA.

06/2025 **Visweswaran S**. Next Generation ENACT Enclaves. Presentation at the *i2b2 tranSMART Foundation's 2025 Harvard Symposium.* Boston, MA.

06/2025 Enders F, Alberti P, **Visweswaran S**. Rethinking “Race” to Reconstruct Research Practices: Introducing Race-Conscious Analysis. Panel presentation at the CMSS Summit *Encoding Health Equity Summit 2025: From Evidence to Impact*. Washington, DC.

11/2025 Shivhare S, **Visweswaran S**, Doddamani S, Kaul S, Quadri M. Removing Bias in Healthcare. Panel discussion at the *Global Health Congress*. New York, NY.

11/2025 Kaul S, Azafrani R, Mehra A, Misra A, Bajaj S, **Visweswaran S**. Ethical use of AI in Healthcare. Panel discussion at the *Global Health Congress*. New York, NY.

11/2025 **Visweswaran S**, Chand M, Shanakr A, Razmi R, Goswami S. AI 101 – Practical Use Cases for Health Professionals. Panel presentation at the *Global Health Congress*. New York, NY.

International Presentations:

08/2008 **Visweswaran S**. Personalized medicine: the future paradigm. Presentation at the *Scientific Session of the Annual Alumni Meet. Jawaharlal Institute of Post-Graduate Medical Education and Research* (JIPMER), Puducherry, India.

05/2019	**Visweswaran S**. Artificial intelligence in medicine. Presentation at the *Medical College of the University of the West Indies*. Cave Hill Campus, Barbados.
10/2019	**Visweswaran S**. Machine Learning Methods and Data Platforms. Presentation at the *Centre for Brain Research (CBR) Data Analysis Meeting, Indian Institute of Science*. Chicago, IL.
02/2021	**Visweswaran S**. Minds and Computers: Artificial Intelligence and the Physician. Presentation at the *Marvelous Medicine Series*. Chennai, India (virtual).
07/2023	Mina AI, Espino JU, Bradley AM, Thirumala P, Batmanghelich K, **Visweswaran S**. Time-series aware metrics for the evaluation of intraoperative electroencephalography-based ischemia detection. Presentation at *MedInfo 2023*.
04/2024	**Visweswaran S**. Towards AI-based clinical decision support. Virtual presentation at the *Clinical AI – the art of the possible* seminar. Centre for Digital Transformation of Health. Melbourne, Australia.
06/2024	Vardhan V, Manjunath G, Adithan S, **Visweswaran S**, Lilaramani S, Datta S. Panel Discussion on AI in Diagnostics. Virtual presentation at *JIPMER's International Undergraduate Medical Conference, Connaissance 6.0*. Puducherry, India.
07/2024	**Visweswaran S**. The Promise of Clinical AI **Visweswaran S**. Measuring Value of Clinical AI **Visweswaran S**. Maintaining the Benefits of Clinical AI Presentations at the forum *Clinical AI: Beyond the Algorithm*. Centre for Digital Transformation of Health. Melbourne, Australia.
07/2025	**Visweswaran S**. Evaluation of Artificial Intelligence-based Clinical Decision Support. Presentation at *2025 INFORMS International Conference*. Singapore.
10/2025	**Visweswaran S**, Natarajan S, Raman SC. How can Artificial Intelligence make Medicine Marvellous? Presentation at the Marvelous Medicine Series. Chennai, India (virtual).

SERVICE

Departmental Service:

2009 – present	Member, Core Faculty in Biomedical Informatics Training Program
2009 – 2016	Member, Executive Leadership Committee, Biomedical Informatics Training Program
2009 – 2016	Member, Admissions Committee, Biomedical Informatics Training Program
2009 – 2016	Member, Student Evaluation Committee, Biomedical Informatics Training Program
2011 – 2016	Member, Preliminary Examination Committee, Biomedical Informatics Training Program
2016 – present	Member, Strategic Planning Committee, Department of Biomedical Informatics
2017 – 2021	Member, Curriculum Committee, Biomedical Informatics Training Program
2023	Member, Promotion Committee, Department of Biomedical Informatics

University and Medical School Service:

2008 – present	Career Advisor, Medical Scientist Training Program of the University of Pittsburgh School of Medicine

2008 – present	Career Advisor, Physician Scientist Training Program of the University of Pittsburgh School of Medicine
2009 – present	Member, University of Pittsburgh Graduate Faculty, University of Pittsburgh
2009 – present	Member, Graduate Training Program in Intelligent Systems, University of Pittsburgh School of Computing and Information
2009 – present	Member, PhD in Clinical and Translational Science Program Committee, University of Pittsburgh School of Medicine (KL2 and TL1 programs)
2015 – present	Mentor, Digestive Diseases Training Program, University of Pittsburgh School of Medicine (T32 program)
2016	Member, Data-X Committee for the School of Computing and Information, University of Pittsburgh
2016 – 2017	Member, Data Management Committee, University of Pittsburgh
2016 – 2018	Member, Tenured Faculty Promotions and Appointments (TFPA) Committee, University of Pittsburgh School of Medicine
2017 – present	Member, Institute of Clinical Research Education (ICRE) Advisory Committee, University of Pittsburgh School of Medicine
2018	Member, Educational Resources Subcommittee for LCME re-accreditation, University of Pittsburgh School of Medicine
2018	Reviewer, Central Research Development Fund (CRDF) - Fiscal Year 2019, University of Pittsburgh
2020	Reviewer, Pitt Momentum Funds 2020, University of Pittsburgh
2021	Member, Pitt Clinical + Translational Resources (CTR) Program Task Force on Data Analytics and Translational/Clinical Database Infrastructure, University of Pittsburgh School of Medicine
2022	Reviewer, Bridging Connections in Addiction Research (BCAR), University of Pittsburgh
2023 – present	Faculty, UPMC Clinical Informatics Fellowship, Pittsburgh, PA
2024 – present	Member, Dickson Prize Selection Committee, University of Pittsburgh School of Medicine
2024 – present	Mentor, Training Program in Imaging Sciences in Translational Cardiovascular Research, University of Pittsburgh School of Medicine (T32 program)
2024	Presenter, Pitt mini retreat on Transformative Assistive Technologies, Human Engineering Research Laboratory (HERL) in Bakery Square, Pittsburgh, PA
2024	Presenter, Pitt Health Sciences and The Pitt Alumni Association partnership event, San Jose, CA
2025 – present	Lead, AI / Health Information Systems Track, Integrated Networks of Scholars in Global Health Research Training (INSIGHT) Steering Committee

Diversity, Equity, and Inclusion Activities:

2011 – 2020	Participate in Computer Science, Biology, and Biomedical Informatics (CoSBBI) high school summer internship program that exposes trainees to biomedical informatics and data science research

2020 – 2024	Develop and approve departmental Diversity, Equity, and Inclusion (DEI) plan for recruiting as a member of Strategic Planning Committee, Department of Biomedical Informatics
2020 – 2024	Lead CTSI's DEI initiatives for informatics as Director of the Informatics Core for CTSI

National Service:

2008, 2012	Member, Workshop Committee, International Conference on Machine Learning (ICML) Workshop on Machine Learning for Health Care Applications
2011	Member, Workshop Committee, Artificial Intelligence in Medicine (AIME 2011) Workshop on Probabilistic Problem Solving in Biomedicine
2011	Member, Workshop Committee, International Conference on Machine Learning and Applications (ICMLA 2011) Workshop on Machine Learning in Medicine
2011	Member, Program Committee, AMIA Summit on Translational Bioinformatics
2012	Track Chair, Program Committee, AMIA Summit on Translational Bioinformatics
2013	Member, Program Committee, Twenty-Seventh AAAI Conference on Artificial Intelligence
2013 – 2014	Member, Workshop Committee, IEEE international conference on Bioinformatics and Biomedicine (BIBM) Workshop on Biomedical and Health Informatics (BHI)
2014	Member, Scientific Program Committee, AMIA Annual Symposium
2014 – 2021	Lead, Data Harmonization Work Group, CTSA's Accrual to Clinical Trials (ACT) network
2015	Member, Program Committee, AMIA Summit on Translational Bioinformatics
2015 – 2022	Member, IT Roundtable Planning Committee, Clinical Research Forum, 2025 M Street NW, Suite 800 Washington DC 20036
2016	Member, Program Committee, AMIA Summit on Translational Bioinformatics
2016 – 2017	Member, EHR Working Group, NIH's All of Us Research Program
2016 – 2017	Member, Data Privacy Working Group, NIH's All of Us Research Program
2017 – present	Member, EHR Operations Group, NIH's All of Us Research Program
2017 – 2018	Member, Common Data Model Harmonization Committee, FDA's Center for Drug Evaluation and Research and IBM
2019 – 2021	Member, Systems Program Committee, IEEE International Conference on Healthcare Informatics (ICHI)
2020 – 2024	Member, Phenotype & Data Acquisition and the Data Ingestion & Harmonization Workstreams, National COVID Cohort Collaborative (N3C)
2020 – 2022	Member, American Medical Informatics Association (AMIA) Public Policy Committee, Bethesda, MD
2020 – 2024	Member, Enterprise Data Warehouse for Research (EDW4R) Working Group, CTSA
2021 – 2024	Co-lead, Neurology COVID-19 analytic group, Consortium for Clinical Characterization of COVID-19 by EHR (4CE)
2022	Member, Scientific Program Committee, AMIA Informatics Summit
2022	Member, AMIA Artificial Intelligence Evaluation Showcase Scientific Program Committee
2023	Member, Scientific Program Committee, AMIA Informatics Summit
2024	Member, Clinical Notes Task Force, NIH's All of Us Research Program

2024	Reviewer, RAND Corporation
2024 – 2025	Member, Participant Contact for Ancillary Studies (PCAS) Board, NIH's All of Us Research Program
2025	Member, Racial Equity in Clinical Equations Initiative Advisory Meeting, Doris Duke Foundation

International Service:

2014 – 2015	Member, External Advisory Board for the National Institute of Health Transformatics, Jawaharlal Institute of Medicine and Surgery Post-Graduate Medical Education and Research (JIPMER), Pondicherry, India
2019	Member, Program Committee, 2019 IEEE International Conference on Healthcare Informatics (ICHI 2019), Beijing, China
2021	Member, Systems Program Committee, 2021 IEEE International Conference on Healthcare Informatics (ICHI 2021), Victoria, Canada