

Hridesh Rajan

Computer Scientist & Academic Leader

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Summary

Computer scientist and academic leader working across programming languages, software engineering, and data science. Known for the Ptolemy programming language and for Boa, an infrastructure for data-driven software engineering at ultra-large scale. Current work focuses on the modularity and trustworthiness of AI-enabled systems. AAAS Fellow, US-UK Fulbright Scholar, and ACM Distinguished Member.

Education

- Ph.D., Computer Science, University of Virginia
- M.S., Computer Science, University of Virginia
- B.Tech., Computer Science and Engineering, Indian Institute of Technology (BHU) Varanasi (formerly IT-BHU)

Academic and Leadership Appointments

- Dean, School of Science and Engineering, Tulane University (2024–present)
- Professor, Department of Computer Science, Tulane University (2024–present)
- Kingland Professor and Chair, Department of Computer Science, Iowa State University (2019–2024)
- Founding Professor-in-Charge, Data Science Programs, Iowa State University (2017–2019)
- Member of Technical Staff, Bell Labs, Lucent Technologies, Bangalore, India (2000–2001)

Selected Honors and Awards

- AAAS Fellow (2021)
- ACM SIGSOFT Distinguished Paper Award, ASE 2023
- Early Achievement in Departmental Leadership Award (2022)
- ACM SIGSOFT Distinguished Paper Award, ESEC/FSE 2020
- Facebook Probability and Programming Award (2020)
- US-UK Fulbright Scholar (2018)
- ACM Distinguished Member (2017)
- Kingland Professorship (2016)
- Big-12 Fellowship (2012)
- Early Achievement in Research Award, Iowa State University (2010)
- NSF Early CAREER Award (2009)

Selected Publications

Hridesh Rajan, An Experiential Introduction to Principles of Programming Languages (MIT Press, 2022). Representative papers span programming languages (Ptolemy, ECOOP 2008), data-driven software engineering (Boa, ICSE 2013), and trustworthy AI (deep-learning bug characteristics, ESEC/FSE 2019; network decomposition, ESEC/FSE 2020; DeepLocalize, ICSE 2021). Full list at lab-design.github.io/papers.

Selected Professional Service

- Commissioner, ABET Computing Accreditation Commission (program evaluator 2018–2024)
- General Chair, ACM SIGPLAN SPLASH 2021 and 2020
- Co-chair, ASEE Engineering Deans Institute (EDI) 2027 Planning Committee
- Steering Committee, ACM SIGPLAN SPLASH (2019–present)
- Founder and General Chair, Midwest Big Data Summer School (2016–2019)

Editorial Boards

- Advisory Board, Proceedings of the ACM on Programming Languages (2023–present)
- Editorial Board, Automated Software Engineering Journal (2024–present)
- Editorial Board, IEEE Transactions on Software Engineering (2017–2022)
- Associate Editor, ACM SIGSOFT Software Engineering Notes (2015–2019)

Research Mentoring

Contributed to the research training of 31 graduate students and postdoctoral fellows and more than 45 undergraduates since 2005. Eight former PhD students and postdocs are now faculty; ten are industrial researchers.