

Tushar M. Athawale

Computer Scientist, Computer Science and Mathematics Division

Oak Ridge National Laboratory, Oak Ridge, TN

Email: athawaletm@ornl.gov | Profile: <https://www.ornl.gov/staff-profile/tushar-m-athawale>

Education

2015 University of Florida, PhD in Computer Engineering

2014 University of Florida, MS in Computer Engineering

2010 University of Pune, India, BS in Computer Engineering

Experience

Computer Scientist, Oak Ridge National Laboratory (ORNL), 2021–Present

Joint Faculty Assistant Professor, Department of Electrical Engineering and Computer Science, University of Tennessee, Knoxville, 2023–Present

Postdoctoral Fellow, Scientific Computing and Imaging Institute, University of Utah, 2016–2021

Application Support Engineer, MathWorks Inc., 2015–2016

Intern, Nvidia Corporation, India, 2009–2010

Awards and Honors

Dr. Athawale is one of 99 researchers across the United States who were selected in 2025 to receive the highly competitive and acclaimed US Department of Energy (DOE) Early Career Award, which recognizes the impact of his work and its strong alignment with national scientific priorities. The award, which he received for his project “VisTrust: Uncertainty Visualization of Univariate and Multivariate Scalar Data for Trusted Analysis and Discovery,” will provide him \$2.75M in funding over five years to advance his research on algorithmic innovations for uncertainty visualization. He received a Special Award from the Computer Science and Mathematics Division at ORNL (2024) in recognition of his impactful research published in the top-tier journal *IEEE Transactions on Visualization and Computer Graphics (TVCG)*. Additionally, he has received Best Paper and Honorable Mention awards at leading venues, including the IEEE Visualization Conference (2024–2025).

Professional Membership and Service

Dr. Athawale is an IEEE member and serves in multiple prestigious roles within the organization. He serves as a program chair for the IEEE Visualization Conference (IEEE VIS)—the premier and largest international conference in the field of data visualization (2025–2026). He is also an associate editor for *TVCG*, a leading journal in visualization and computer graphics (impact factor: 6.5). Additionally, he chaired the IEEE Uncertainty Visualization Workshops in 2024–2026. He has reviewed more than 100 papers through service on program committees for leading visualization conferences, including IEEE VIS, IEEE PacificVis, EuroVis, IEEE TopoInVis, and Eurographics, and served as a reviewer for several prominent journals such as *TVCG*, *Computer Graphics Forum*, *Computers & Graphics*, *IEEE Computer Graphics and Applications*, *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*, and *The Visual Computer*.

Publications and Invited Talks

Dr. Athawale is the first author on more than 10 publications in uncertainty visualization, nine of which appear in the prestigious *TVCG*. In total, he has authored over 50 peer-reviewed publications and refereed conference and workshop proceedings. He has been invited as an uncertainty visualization expert at top venues, including as an author of the 2022 DOE Visualization Workshop report; a panelist at Supercomputing (2025); and a speaker at Los Alamos National Laboratory (2018), the Indian Institute of Science (2019), the Dagstuhl Seminar (2022), and the University of Oklahoma (2025).

Other

With a strong focus on developing the next generation of the STEM workforce, he has mentored three undergraduate students through ORNL internship programs (2023–2025) and taught undergraduate and graduate courses at the University of Utah (2017–2019). He is recognized for pioneering contributions to the uncertainty analysis of isosurfaces—a widely used visualization technique—by integrating AI, probability theory, topological analysis, and parallel computing and thus advancing trusted data analysis across diverse scientific domains.