

## Short Biography — Prashant Vajpayee

**Prashant Vajpayee** is a researcher, technology leader, and Senior Product Manager whose work spans **Artificial Intelligence, cybersecurity, data science, cyber-risk management, and secure digital systems**. He is pursuing a Ph.D. in Data Science with a focus on AI and Cybersecurity at the University of North Texas. His academic background includes an MBA in Information Technology Management from the University of Texas at Dallas and a B.Tech. in Electrical Engineering from the National Institute of Technology, Kurukshetra.

His research centers on developing **AI-enabled approaches to cybersecurity risk assessment, prediction, and mitigation**, with particular emphasis on Cyber Value-at-Risk (CVaR), cognitive cybersecurity, IoT security, responsible AI, and human-centered cyber-risk management. His work examines how artificial intelligence can strengthen the security and resilience of complex digital environments, including cloud platforms, connected devices, intelligent transportation systems, and emerging AI-enabled infrastructures. More recently, his research has expanded into **Agentic AI, trusted AI, Zero Trust architectures, data integrity, and responsible AI governance**, addressing the security, ethical, and organizational challenges associated with increasingly autonomous intelligent systems.

Vajpayee has authored and co-authored research presented through **IEEE conferences and international research forums**, with publications addressing AI-enabled anomaly detection, cyber-risk quantification, multi-tenant cloud security, IoT cybersecurity, digital twins, Transportation 5.0, cybersecurity education, cognitive bias in cyber-risk assessment, and Agentic AI-enabled cyber defense. His research reflects a multidisciplinary approach that connects technical cybersecurity with human factors, risk management, education, governance, and responsible innovation.

Alongside his academic work, Vajpayee brings more than **20 years of experience in technology and product leadership** across enterprise software, data platforms, cybersecurity, artificial intelligence, and digital transformation. At Salesforce, he leads initiatives involving enterprise AI, data and integration platforms, cybersecurity, privacy, compliance, and responsible AI. This combination of research and industry experience allows him to translate emerging scientific concepts into practical approaches for securing and governing large-scale digital systems.

Vajpayee is actively engaged in the scientific community as **Vice President and Board Member of the Sigma Xi University of Texas at Dallas Chapter**, a **Senior Member of IEEE**, and a **Fellow of the Institute of Analysts and Programmers**. His professional service includes peer review for scientific journals and conferences and participation in interdisciplinary research and STEM education initiatives. He also mentors students, researchers, professionals, and entrepreneurs, with a particular emphasis on cybersecurity, AI, data science, and emerging technologies.

His commitment to scientific impact extends beyond research publications. As Principal Investigator, he has secured Sigma Xi chapter funding for initiatives focused on **AI and cybersecurity awareness, workforce enablement, diversity and inclusion, responsible AI, law, data integrity, and secure scientific innovation**. These efforts reflect his broader goal of

making advanced technology more secure, responsible, accessible, and beneficial to diverse communities.

Through the integration of **scientific research, industry innovation, education, mentoring, and professional service**, Vajpayee is advancing practical and human-centered approaches to responsible AI and cybersecurity while contributing to the development of a more secure and trustworthy digital future.