



Ms. Prakriti Singh is an Assistant Professor in the Department of Computer Science and Engineering (Cyber Security), School of Engineering, Dayananda Sagar University, Bengaluru, India. She completed her Bachelor's degree in Information Technology from Kamla Nehru Institute of Technology, Sultanpur, Uttar Pradesh, in 2023. She further strengthened her academic background by earning a Master of Technology (M.Tech) in Computer Science and Engineering from the Maulana Azad National Institute of Technology (MANIT), Bhopal, Madhya Pradesh, in 2026.

Her research interests primarily focus on Cyber Security and Artificial Intelligence & Machine Learning (AI & ML). Her research contributions are centered on Advanced Persistent Threats (APTs) Detection, where she explores sophisticated approaches to tackling high-granularity gradient synchronization and categorical feature handling to improve the resilience of decentralized systems. She is actively engaged in developing adaptive frameworks that can respond to evolving digital threats, demonstrating a strong commitment to research and the continuous advancement of cybersecurity education.

She also successfully completed intensive certifications in Cloud Computing and Software Testing under the NPTEL program. Her academic and professional activities reflect a focus on leveraging data science and machine learning to solve modern security challenges in the digital age.

Research Interests

- Cyber Security and Network Security
- Advanced Persistent Threats (APTs) Detection
- Artificial Intelligence and Machine Learning (AI & ML)
- Federated Learning and Transfer Learning (FTL)

Professional Highlights

- Completed **Cyber Forensics Bootcamp** on Web Application and Mobile Forensics (ISEA Phase III)
- Developed AI-based systems prioritizing high-granularity gradient synchronization via FedSGD and XGBoost classifiers.
- Completed intensive NPTEL certifications in Cloud Computing and Software Testing.

Vision and Goals

Ms. Prakriti Singh aspires to develop highly resilient and adaptive security frameworks that safeguard decentralized and networked environments from increasingly sophisticated cyber threats. Her vision includes leveraging machine learning to create intelligent defense systems that can effectively manage evolving malware landscapes, ensuring long-term security and privacy in the global digital infrastructure.

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