BHUMIKA SHARMA

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OBJECTIVE

Motivated Computer Science undergraduate specializing in Cyber Security, with strong foundations in Artificial Intelligence and Machine Learning. Seeking internship or research opportunities to apply problem-solving skills, secure system design, and data-driven modeling to real-world challenges while continuing to grow as a software and security professional.

EDUCATION

Bachelor of Technology in Computer Science and Engineering (Cyber Security)   2023 – 2027
Vellore Institute of Technology, Bhopal Campus
CGPA: 8.3
Relevant Coursework: Computer Networks, Cryptography, Network Security, Operating Systems, Data Structures, Artificial Intelligence and Machine Learning & Software Engineering.

TECHNICAL SKILLS AND INTERESTS

Languages	C / C++, Python, Java, HTML, CSS
Libraries	C++ STL, Python Standard Libraries
Developer Tools	VS Code, Git, GitHub
Databases & Cloud	MongoDB, MySQL (Relational Databases)
Soft Skills	Problem Solving, Self-learning, Presentation, Adaptability

EXPERIENCE

Research Intern — Machine Learning and Artificial Intelligence   Nov 2024 – Present
Maulana Azad National Institute of Technology (MANIT), Bhopal   *Bhopal, India*

- Conducting research on machine learning and artificial intelligence techniques for real-world problem solving.
- Implementing and evaluating ML models using Python for data preprocessing, training, training, and performance analysis.
- Collaborating with faculty and research scholars on model optimization, experimentation, and result interpretation.

Cybersecurity Intern   May 2025 – June 2025
AST Consulting   *Online / Offline*

- Secured cloud environments by configuring firewalls, encryption protocols, and access controls to protect sensitive data.
- Conducted security audits and penetration testing to identify and mitigate vulnerabilities in web applications and network systems.
- Performed real-time network monitoring and anomaly detection using Wireshark and Splunk to prevent potential cyber threats.

PROJECTS

MedX-Transfer: A Cross-Modality Structural Learning Framework for Heart CT–MRI Diagnostics
Developed a cross-modality learning framework to integrate structural features from Heart CT and MRI data for improved cardiovascular diagnostics. Implemented deep learning and transfer learning techniques to align heterogeneous medical imaging modalities, enhancing diagnostic consistency and robustness.
Under IEEE publication

Kidney Disease Detection Model
Developed a machine learning model to detect and classify kidney diseases with a focus on precision and data-driven insights. Processed large-scale medical datasets using feature extraction, visualization, and dimensionality reduction techniques.
Technologies: Python, NumPy, Scikit-learn

Web-Based Facial Authentication (Liveness Detection)
Designed a secure facial authentication system implemented as a web application with a Chrome Extension to enable password-less user login. Incorporated liveness detection techniques to prevent spoofing attacks and enhance authentication security.
Technologies: Python, React.js, Bootstrap

POSITIONS OF RESPONSIBILITY

- **Technical Committee Advisor, VIT Bhopal** 2025 – Present
  Providing technical guidance to student committees on event planning, execution, and technical strategy for institutional initiatives.

- **Technical Advisor, Robox Club, VIT Bhopal** Mar 2025 – Present
  Advising and contributing to club-led technical projects, mentoring members, and supporting the organization of technical workshops and events.

- **Head — Management, Software Engineering Club, VIT Bhopal** Mar 2025 – Nov 2025
  Led management and coordination activities for the Software Engineering Club, overseeing event logistics, team coordination, and execution of technical initiatives.

- **Lead, Entrepreneurship Cell (E-Cell), VIT Bhopal** Oct 2024 – Nov 2024
  Led initiatives to promote entrepreneurship and innovation among students. Organized entrepreneurship-focused events and workshops, engaging a large student audience.