AYUSHMAN RAY

+91-8127067630 | ayushman05.ray@gmail.com | LinkedIn | GitHub | LeetCode

EDUCATION

B. Tech in Computer Science and Engineering	**Sept 2022 - Present**
Vellore Institution of Technology	CGPA: 8.36

TECHNICAL SKILLS

Languages: Python, Java, HTML
Tools: Linux, Visual Studio Code, Google Colab, Flask, Webhooks, MySQL, GitHub
Security Tools: Nmap, Scapy, Burp Suite, Wireshark, Metasploit, GoPhish, Autopsy
SIEM Tools: Splunk (Certified - Intro to Splunk & Using Fields)

EXPERIENCE

Software Intern – Tonbo Imaging   **Nov 2024 – Jan 2025**
- **Optimized Linux kernel** boot speed by 23% (35ms to 27ms) and power efficiency by 15% through bottleneck analysis and parameter tuning on embedded platforms

Backend Development Intern — Staychat AI   **Nov 2025 - Present**
- **Architected and deployed WhatsApp Business API integration** using FastAPI and Meta's webhook system, enabling real-time conversational AI for multi-property hotel management with automated booking workflows
- **Implemented hybrid AI model** combining Google Dialogflow and Gemini API for intelligent query routing, achieving seamless fallback mechanisms between rule-based and generative AI responses for enhanced customer interactions

Cyber Security & Ethical Hacking Intern — SparkIIT   **Dec 2025 - Present**
- **Executing hands-on cybersecurity projects** including phishing simulation (GoPhish), web application VAPT following OWASP guidelines, Android penetration testing, and digital forensics investigation using Autopsy toolkit
- **Gaining practical expertise** in vulnerability assessment, penetration testing methodologies, social engineering attac vectors, and forensic analysis through intensive project-based training

PROJECTS

System Monitor Pro (Linux, Python, Flask)
- **Full-Stack Architecture:** Engineered a hybrid monitoring tool decoupling data collection (Python/psutil) from visualization (Flask/Chart.js), ensuring zero-latency dashboard updates during high system load
- **Real-Time Data Pipeline:** Designed a JSON-based REST API to asynchronously fetch system metrics (CPU, RAM, Thermal) without page refreshes, optimizing frontend performance
- **Defensive Programming:** Implemented automated log rotation and error handling to prevent storage overflows, ensuring long-term stability for background Linux processes

ACHIEVEMENTS

HackQuest CTF Season 10 (TCS) | December 2025
- Solved complex challenges in Cryptography, Forensics, and Reverse Engineering, securing 600 points (Official) + 300 points (Upsolve)
- Exploited a Time-Based PRNG vulnerability to decrypt data and parsed 41K+ log entries using Regex to reconstruct a hidden flag
- Reverse-engineered a Python executable by unpacking PyInstaller and analyzing bytecode to identify an XOR-based encryption scheme

PATENT - Led cross-functional development team of 5 engineers to co-create "Cool Veil" smart cooling jacket, securing intellectual property rights and delivering a functional prototype that reduced ambient temperature by 12-18°C within 3 minutes of activation (Application No. 13269/2025-CO/SW, Filed: 07/04/2025).

EXTRA-CURRICULARS

Managed technical operations for AdVITya 2025 (College Fest), supervising 40+ events and ensuring zero disruptions through systematic workflow monitoring**.**

POSITION OF RESPONSIBILITY

Technical Secretary – Student Council – VIT Bhopal University   **Aug 2024 – Aug 2025**
- Managed 40+ technical clubs and oversaw university-wide events, coordinating resource allocation, documentation, and administration liaison for the Student Council

Technical Lead – GSoC Innovators Club – VIT Bhopal University   **Jan 2025 – July 2025**
- Spearheaded 'Summer of CodeFest 25' for 100+ participants, leading technical sessions on GitHub and mentoring teams throughout the hackathon