AMRITANGSHU DEY

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EDUCATION

VELLORE INSTITUTE OF TECHNOLOGY , BHOPAL   Bhopal, MP

Bachelor of Technology in Computer Science & Engineering (Cyber Security & Digital Forensics)   Expected Aug 2026
Current GPA: 9.12/10.00
Relevant Coursework: Network Security, Data Analysis, Operating Systems, Cyber Security

VIVEKANANDA KENDRA VIDYALAYA, TINSUKIA   Tinsukia, AS

Class XII (PCM); Class X   Apr 2008 - May 2022
Percentage: 83.2 % (Class XII); 97.6% (Class X)

ACADEMIC PROJECTS

DNS Exfiltration Attack Disclosure with Machine Learning (ML)   Aug 25 – Present

- Currently leading a 5-member team in an ongoing Capstone project to develop a DNS-based data exfiltration disclosure system using machine learning (ML), targeting around **85–90%** accuracy for malicious traffic detection across small and large-scale attacks
- **Tools:** Python, Scikit-learn, Pandas, Feature Engineering

Secure EHR Analytics using Federated Learning (FL) and Homomorphic Encryption (HE)   Sep 24 – Dec 24

- Led a 7-member team to design a secure EHR analytics system using Federated Learning with CKKS Homomorphic Encryption and SMPC, achieving **94.2%** model accuracy while ensuring zero patient data exposure during decentralized training.
- **Tools:** Python, FL Framework, CKKS Homomorphic Encryption, Secure Multi-Party Computation (SMPC)
- **Link:** Click

Vectword   Jun 24 – Aug 24

- Created a password manager in Python with AES-256 encryption, TOTP-based 2FA, and a simple CLI, ensuring secured local credential storage and improving management efficiency by **80%**.
- **Tools:** Python, cryptography, pyotp, qrcode, AES-256, TOTP, CLI
- **Link:** Click

SKILLS & CERTIFICATIONS

Programming & Scripting: Python, SQL, PowerShell
AI Tools: TensorFlow Federated, NLP, LangChain (Basic), GPT API
Data Analysis Tools: Power BI, Tableau, Excel, Matplotlib, Seaborn, ETL
Security Technologies: SIEM, Log Analysis, VAPT
Certifications:
- SY0-701: CompTIA Security+ - CompTIA   Ongoing
- SC-200T00-A: Microsoft Security Operations Analyst - Microsoft   Jul – 25
- Certified AppSec Practitioner (CAP) – The SecOps Group   Jan – 25

POSITIONS OF RESPONSIBILITY

- **Served as Project Coordinator – Cyber Warriors Club**, VIT Bhopal (2023–2025); mentored juniors and helped organize cybersecurity workshops attended by 150+ participants.
- **Served** as a member of the Student Welfare Department Committee - VIT Bhopal (2022-2023), contributed to student welfare initiatives.
- **IEEE MP Division Student Member (2023) –** assisted in organizing 2+ technical webinars and 1 workshop.
- **National Service Scheme (NSS) Volunteer (2023 - 2025)** - Conducted quantitative survey to understand MP Villager's issues. 3 camps conducted with 200+ students and 2 village participation.

ACHIEVEMENTS & EXTRA-CURRICULAR

- **Secured Runners-up** Position at DeveloperWeek Hackathon 2025 (Devpost) – by prototyping an AI-Powered phishing detection tool in a team of 4, among 300+ teams nationwide.
- **Achieved 97.3 percentile** in JEE Mains 2022, with 280,000+ candidates participating nationally.
- **Assisted** in faculty-guided research on encryption standards during 3rd year, gaining exposure to cryptographic applications.
- **Published 3 articles** on MLSecOps and Security related solutions, demonstrating subject matter importance.