

SAMRUDH MALLYA

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OBJECTIVE

Motivated and detail-oriented Information Science student with a passion for AI security, cryptography, and Machine Learning. Currently exploring system design principles, encryption methods and memory-augmented LLMs. Seeking a hybrid internship to contribute to solving problems and creating useful software in the fields of Machine Learning and Cyber-Security.

EDUCATION

Bachelor of Technology in Information Science

NMAM Institute of Technology

Expected 2026

SKILLS

Technical Skills:

- **Programming Languages:** Python, Java, C, R
- **Web Development:** HTML, CSS, JavaScript, React, PHP
- **Databases & Tools:** SQL, Git, GitHub, Postman
- **AI & ML Tools:** Familiar with PyTorch, TensorFlow, FAISS, Pinecone
- **Software Development:** Data Structures & Algorithms, API Integration, System Design
- **IDEs:** PyCharm, VSCode

Soft Skills:

- Problem-solving & analytical thinking
- Leadership & teamwork
- Time management & adaptability
- Effective communication
- Rapid Learning
- Confidentiality

EXPERIENCE

- Tech Team Co-coordinator of ISE branch Organization:
Organized 4 events for various branches of our college, and worked on delegation of tasks and supervision
- Volunteered in multiple college events (Tech and non Tech) for publicity, social media, coordination of work and managing deadlines.

2023- Ongoing

PROJECTS

- **Memory Augmented LLM:**
Building an LLM using a pre-trained transformer with long-term memory capabilities using FAISS or PineCone vector databases and structured user profiles. Focused on enabling context-aware conversational AI and solving a real world problem using AI.
- **Secure Key Management System:**
Designed and implemented a full-fledged key management system supporting AES and RSA encryption, X.509 certificates, Diffie-Hellman key exchange, key revocation, and digital signatures. Emphasized secure storage, key lifecycle management, and protection against MITM attacks.
Github link: <https://github.com/sammymallya/INS-LAB/tree/main/Mini-Project/INS-MINIPROJECT>

- **Encryption and CyberSecurity Project (confidential):**

Working on an advanced project involving encryption systems and cybersecurity solutions with real-world applicability. Details undisclosed due to sensitivity.

CERTIFICATIONS & TRAINING

- Undergoing Juniper MistAI training (JNCIA-MistAI)
- Undergoing Juniper DevOps training (JNCIA-DevOps)
- **Generative AI: Prompt Engineering by IBM**
- **Role of Encryption in Data Security by Skillsoft**
- **Python Certificate by HackerRank**
- **Currently learning Machine Learning A-Z from Udemy**

EXTRA-CURRICULAR ACTIVITIES

- Member of **ISE Branch Football Team**
- **Technical Co-ordinator of ISE Branch Club.**
- **Participant in multiple regional hackathons**, showcasing innovative solutions in fin-tech and automation.
- **Winner of various intra- and inter-branch technical competitions**, demonstrating excellence in software development and engineering challenges.