

Rohan Lodhi

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EDUCATION

FLAME University

Bachelor of Science in *Computer Science and Applied Mathematics*

Pune, MH

April 2026

Advanced ML, NLP, Formal Methods, Software Architecture, Systems Programming, DSA

EXPERIENCE

Cybersecurity Intern

May 2025 – June 2025

DRDO (Defence R&D Organisation)

Hyderabad, IN

- Researched OT cybersecurity with emphasis on threat modeling and ICS diagnostics.
- Architected a bespoke **VAPT pipeline** integrating **Nmap**, **Amass**, **Recon-ng**, and executed targeted subnet-level penetration testing to uncover critical vulnerabilities.
- Investigated AI/ML-driven anomaly detection and Zero Trust implementation in industrial networks.

Software Automation Intern

May 2024 – Aug 2024

Model N via CloudNeurons

Hyderabad, IN

- Engineered a full-stack Python ETL system for ingesting CSV, XLSX, and PDF data into **MongoDB**.
- Designed a modern **ReactJS** frontend for dynamic data interaction.
- Automated Outlook-based bulk mailing via a **Tkinter+COM** utility, streamlining operational comms.

Emerging Technologist

Aug 2023 – Dec 2023

Millennium Fellowship (UN x MCN)

Pune, IN

- Co-developed a grassroots climate-action platform using **ReactJS**, **NodeJS**, and **MongoDB**.

Research Assistant, Mathematics

Sept 2023 – Apr 2024

FLAME University (Prof. Renu Dhadwal)

Pune, IN

- Numerically solved and visualized PDEs using **Python**, **NumPy**, **SciPy**, **Matplotlib**.

PROJECTS

Gofer WASM Interpreter | C, WebAssembly

October 2024 – Present

- Currently porting a functional programming interpreter to the web using **WebAssembly**, enabling browser-based execution of **legacy C** code.
- Adapted platform-specific features like terminal I/O and file handling for compatibility with **Emscripten**, ensuring seamless functionality.

Unishell - Bash Emulator | C++, Windows API, Linux

August 2023 – December 2023

- Developed a platform-independent **UNIX shell**, extending Unix commands to Windows. The project aimed to provide a seamless Unix-like environment on Windows systems.
- Acquired proficiency in cross-platform development and command-line interface (CLI) scripting.

Reactango | Web App

Summer 2020

- Reactango aimed to provide an interactive platform for coding enthusiasts to practice and enhance their skills.
- Gained expertise in ReactJS for frontend development and building interactive web applications.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Assembly (x86)

Frameworks: React, Node.js, Django

Developer Tools: Git, Docker, VS Code, Visual Studio, Linux

Libraries: Pandas, NumPy, Matplotlib

Low-Level Skills: Systems Programming, Memory Management, Concurrency, OS Internals, Compilers, Debugging