DAVID PORATHUR

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SUMMARY

Final-year Electronics and Computer Science student with hands-on experience in building scalable cloud based applications, distributed systems across polyglot databases, LLM pipelines, and IoT infrastructure. Proficient in Python, Java, C/C++, and Linux. Passionate about cybersecurity, systems design and building software that operates at scale.

EDUCATION

B.E. in Electronics and Computer Science (*Honors in Cybersecurity)* [2023 - 2027]
Fr. Conceicao Rodrigues College of Engineering, Bandra | CGPA: 8.2 of 10

- Elective Courses: Cryptography, Cloud Computing (AWS), System Security, Digital Forensics
- Certifications: Google Cloud Cybersecurity Certificate, AWS Academy - Cloud Architecting

TECHNICAL SKILLS

- Linux, IoT Cloud
- Ollama, RestAPIs
- AWS, Firebase, GCP
- SQL, Firestore, Qdrant, Neo4j
- Python, FastAPI, Flask
- VMWare ESXi on ARM Fling
- C/C++, Embedded C
- Docker, Github Actions
- HTML, Tailwind CSS, Nextjs

PROFESSIONAL EXPERIENCE

Intern at National Critical Information Infrastructure Protection Centre - (NTRO) [JUNE 2025 - NOV 2025]

- Worked on multiple projects, architecting data ingestion pipelines integrating real-time OSINT feeds from 60+ sources, including OTX, Threatfox, MITRE, web crawlers, scrapers, etc.
- Developed the system infrastructure with a polyglot persistence, integrating Redis, PostgreSQL, Neo4j and Qdrant vector databases to ensure high availability and efficient querying of complex threat data.
- Fine-tuned specialized Large Language Models (LLMs), converting raw threat data into high-fidelity instruction sets for precise APT and entity extraction. Optimized performance by utilizing a Multi-GPU training setup and developing python scripts with multi-core processing for parallel data scraping.
- Delivered a complete, working prototype system featuring both a functional web dashboard for visual monitoring and a CLI for system control and real-time data analysis, used by the security and development teams.
- Collaborated with the security and development teams to improve the performance and reliability of the systems.

Intern at Oasis Luminaries - Product R&D Team [JAN 2025 - MAY 2025]

- Designed and developed a user-friendly web dashboard to control multiple IoT devices together, integrated APIs from various vendors as well as made 7+ RESTful APIs to establish links to the hardware system and ensure reliability.
- Architected a custom IoT Gateway software for ESP32 and Raspberry Pi interfaced with an OpenWRT based IoT setup, successfully integrated multiple devices like advertising displays, smart lights, audio broadcast systems, etc.

PROJECTS

CRCEats | An App for the College Canteen
A full SaaS platform for managing college canteen ordering and operations end-to-end. Built with react native (expo), firebase and typescript. Integrated PhonePe payment gateway and QR based order verification. Implemented real-time order tracking, role-based access for users and canteen staff, and optimized performance with offline image caching.

PanelSena | A full-stack cloud-based digital signage platform (Open-sourced)
Designed for the centralized management of unlimited Raspberry Pi and Android displays. Leveraging a real-time Firebase infrastructure, the system incorporates secure device-based authentication, live playback synchronization, content scheduling, and comprehensive activity logging to ensure robust operational monitoring.

Echo ATT&CK | A Threat Intelligence Dashboard (Open-sourced)
A comprehensive cybersecurity threat intelligence platform that visualizes and analyzes MITRE ATT&CK framework data, providing security professionals with actionable insights into Advanced Persistent Threat (APT) groups and attack techniques. Implemented automated CI/CD pipelines using GitHub Actions to continuously sync and update threat data from MITRE.

ACTIVITIES & ACHIEVEMENTS

- SIH Finalist 2024 | Winner at Hacksphere 2025 hackathon in cybersecurity domain | 2x Hackathon Winner
- College Communities: **Project Cell CRCE** [Technical Lead (2024-25) & Lead (2025-26)](3 Years)
  Organised multiple sessions, workshops for the students. Built multiple innovative projects for the college. Designed and hosted a Capture-The-Flag (CTF) styled cybersecurity challenge. Led the organization of Prakalp 4.0 - A national level project exhibition competition, coordinating logistics and engagement for 115+ participating teams.