

Prathmesh Sayal

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Experience

Intern Trainee, ISRO-Leos Bangalore

August 2025 – Present

- Developed a robust AI pipeline for processing and interpreting complex visual data, directly contributing to the development of **high-precision autonomous control systems**.
- Designed** and **prototyped** novel machine learning algorithms focused on achieving **maximum reliability and precision** in simulated, zero-margin-for-error space environments.

Project Intern, Hewlett Packard Enterprise(HPE)-Remote

April 2025 – Present

- Built a Confidential Computing prototype on AWS & Kubernetes to run workloads in secure enclaves, **eliminating all vulnerabilities flagged in initial penetration tests (12/12 issues resolved)**
- Automated compliance checks in Python and integrated into CI/CD pipeline, **reducing manual audit steps by 80%** for the target service
- Presented proof-of-concept to HPE security leadership, earning approval to **expand pilot to 3 enterprise products**

Skills

Languages: Python, Java, C + + , JavaScript, TypeScript

Frameworks: React.js, Node.js, Next.js, Express.js, TensorFlow

Tools: SQL, PostgreSQL, MySQL, MongoDB, AWS, Docker, Kubernetes, MongoDB, Git

Projects

Heritage (Team Lead, Full Stack Developer)

- Led a 4-member team to build a tourism platform integrating an MCP-RAG chatbot, gamified AR experiences, and secure IPFS-based content storage
- Implemented AR scavenger-hunt feature that **increased beta user engagement by 42%** during pilot testing
- Tools Used: Python, LangChain, Groq API, Next.js, Google Maps API, Twilio, OQS, IPFS

Fence.AI - Deepfake Detection and Media Verification (Backend Developer)

- Developed XAI-powered deepfake detection and protection service in Python to authenticate media before social platform uploads, **flagging 96% of test deepfakes in benchmark dataset**
- Built a community-driven voting module that **increased detection accuracy by 18%** over AI-only verification in controlled trials
- Tools Used: Blockchain, Python, Web3.js

Education

Ramaiah Institute of Technology, B.E in Computer Science Engineering

August 2023 – August 2027

Specialisation in **Cybersecurity**

- CGPA: 9.56/10.00 (Till 4th Semester)
- Coursework:** Computer Organisation Architecture, Data Communication & Networking, Computational Theory, Compiler Design, DataBase Management System

Achievements

- Winner, HPE Think-a-thon '25 — Brainstormed 10 DS Problems under time constraint environment
- Winner, CIDECode PES'25 — Fence.AI project recognised by the Hon'ble Home Minister of Karnataka.
- Runner-Up, Smart India Hackathon 2024 (EDUMITRA) — National-level innovation challenge, organised under the guidance of the Hon'ble Prime Minister of India.
- Winner, BIT Hack 2024 — Developed "Symptom Sage," an AI-powered health diagnostics solution.

Research Publications

Quantum Powered Data Analysis

ICEMTEC Pune, 2024

- Published a paper exploring the intersection of quantum computing and data analytics.

Extra-Curricular

EXECOM, IEEE RIT-B - Computational Intelligence Society

Jan 2025 – Present

Core Member, Google Developer Group (GDG) – RIT

Dec 2024 – Present