

YUVRAJ SINGH

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SUMMARY

Second-year B.Tech CSE student at SRM University AP. I write Python and TypeScript, mostly in security tooling, developer tools and web apps. Four public projects on GitHub cover log pipelines, CI debugging, face verification on Polygon, and crash explanation. Technical lead in two student communities.

EDUCATION

B.Tech, Computer Science & Engineering, SRM University AP

Sept 2025 to Sept 2029 (expected)

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C/C++, SQL, Solidity

Web & Backend: React, Next.js, Node.js, Express.js, Tailwind CSS, HTML, CSS, Vite, REST APIs

Data & Infrastructure: PostgreSQL, SQLite, OpenSearch, Parquet, DuckDB, MinIO, Docker, GitHub Actions, CI/CD, Vercel

Security & Web3: DevSecOps, OCSF, SIEM pipelines, secret redaction, Web3.py, Web3.js, IPFS, Polygon

Tools & AI: Git, GitHub, pytest, ruff, OpenCV, Groq API (LLM integration)

PROJECTS

ULPF: Universal Log Pre-processing Framework

Python, MinIO, OpenSearch, Parquet, DuckDB, Docker

[GitHub](#)

- Pipeline that converts firewall and network logs (Cisco ASA, Palo Alto, Fortinet, Check Point, Suricata, Zeek, Squid) into OCSF 1.1.0 and runs fully offline.
- Raw events are stored write-once in MinIO with SHA-256 checks; delivery to OpenSearch and Parquet needs both to acknowledge. Unknown formats are handled with Drain3.
- 92 tests across 18 suites, 77% coverage, including SSRF, ReDoS and 200-worker concurrency cases.

VeriFace Protocol (PoF): face verification pipeline

Python, OpenCV, Solidity, Web3.py, IPFS, Docker

[GitHub](#)

- Detects and embeds faces (YuNet, SFace), runs reverse-image search, and re-checks each candidate by cosine similarity before accepting a match.
- Evidence goes to IPFS and a hash is written to a Solidity contract on Polygon Amoy, only after an explicit consent flag. Reports are signed with EIP-191; CI and pytest included.

Errly: crash explanation CLI

Python, Groq API, pytest

[GitHub](#)

- Runs Python and Node.js scripts and explains crashes in plain English with a suggested fix. Redacts secrets before sending anything, caches answers for 30 days, retries on rate limits.

Etio: CI failure diagnosis GitHub Action

Python 3.11, GitHub Actions, Groq API

[GitHub](#)

- Pulls the failed job log, diffs against the last green run, and posts a diagnosis as a pull request comment. Optional bisect and draft-PR fix modes never merge on their own.

LEADERSHIP & EXPERIENCE

Executive, Singularity Research Lab, SRM AP

2026 to present

- Executive member across the student lab and its research lab; work on technical direction and member coordination for the research community.

Technical Co-Head, Microsoft Student Community, SRM AP

2026 to present

- Lead development and maintenance of the community website and technical projects.

Technical Team Member, IEEE Student Branch, SRM AP

Mar 2026 to present

- Work on branch websites, workshops and technical projects.

Campus Ambassador, E-Cell, IIT Guwahati

Nov 2025 to Jan 2026

- Promoted UDAM'26; ranked in the top 15 campus ambassadors nationwide.

ACHIEVEMENTS & CERTIFICATIONS

- Finalist: GfG My1stHack and VibeCraft Hackathon (SRM AP). Semi-finalist: Convolove 4.0 (IIT Guwahati). Open-source contributor: Elite Coders Winter of Code.
- Cyfrin Updraft Blockchain Basics; Tata Cybersecurity Analyst and EA Software Engineering job simulations (Forage); GeeksforGeeks Cyber Security Skill Up; IBM Getting Started with Cybersecurity (Jan to Mar 2026).