Pranjal Mehta

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Summary

Computer Science engineering student blending software engineering with cybersecurity, with internship experience at Amazon, PwC, and Cisco. Built a TOCTOU vulnerability research toolkit, a multi-algorithm API rate limiter, and an autonomous SOC agent with a full FastAPI detection-to-remediation pipeline. Google Cybersecurity certified; EC Council CEH v13 certified.

Technical Skills

Languages: Java, Python, C, SQL
Cyber Security: Splunk (SIEM), Wireshark, Nmap, Burp Suite, OWASP ZAP, IAM, MITRE ATT&CK, Threat Detection, Vulnerability Assessment
CS Fundamentals: DSA, OOPs, System Design, Operating Systems, Computer Networks, DBMS, Cybersecurity
Hands-on Practice: LeetCode – 150+ DSA problems solved · TryHackMe – 41 rooms completed
Standards & Governance: ISO 27001, SOC 2, NIST, HIPAA
AI / LLM: Prompt Engineering, Claude Engineering, Token Optimization
Misc: AWS, Git, Redis, Postman, REST API, FastAPI, JSON

Technical Achievements

Myntra NextGen 2026 | *Winner* — Feb 2026
AWS Gen AI India hackathon | *2nd place* — Jul 2025
TCS BCIC Hackostav | *4th place* — Aug 2025
Honeywell Hackspace Hackathon | *4th place* — Oct 2025
Flinders University AI Competition | *Finalist* — Mar 2026
Flipkart Grid 7.0 | *Finalist* — Aug 2025
McDonald's Website – Technical Loophole | *Bug Bounty* — Mar 2026

Experience

PWC (*PricewaterhouseCoopers*) — Feb 2026 – May 2026
CDTR Trainee (Cyber, Data and Tech Risk) — *Bengaluru*

- Contributed to cloud security reviews, phishing assessments, and compliance mapping (ISO 27001, SOC 2), analyzing enterprise security workflows across modern digital environments.
- Automated security and operational workflows using PowerShell scripting, AI-driven automation, SQL, and API integrations, reducing manual effort across enterprise processes.

Amazon — Dec 2025 – Jan 2026
Software Engineering Intern — *Chennai*

- Executed a last-mile delivery optimization project for the GSF Last Mile team, improving SSD pickup, calling/texting, and vehicle-inspection compliance and optimizing cost-per-delivery (CPD) across the N&E region, reducing Attempt/Reject/Partial delivery failures and supporting DASE launch readiness.
- Built internal tooling and data workflows using Java, SQL, and REST APIs to automate compliance tracking and delivery metrics, collaborating cross-functionally in an Agile environment.

Cisco — June 2025 – Aug 2025
Cyber Security Intern — *Virtual*

- Performed log analysis and network monitoring in Splunk across simulated enterprise traffic, gaining hands-on exposure to event triage, threat detection, and incident troubleshooting.
- Completed technical assignments on networking (Packet Tracer), security fundamentals, and log/event analysis.

Ciphrix — June 2024 – Aug 2024
Software Engineering Intern — *Sydney*

- Researched SOC 2, ISO 27001, and HIPAA and authored structured, insight-driven technical blogs simplifying complex compliance frameworks.
- Refined the website frontend, adding final UI/UX improvements and ensuring a polished user experience.

Certifications

Cybersecurity Professional Certificate | *Google* — May - Aug 2025
Junior Cybersecurity Analyst Career Path | *Cisco* — Jun 2025
Certified Ethical Hacker v13 | *EC Council* — Starting Jun 2026

Projects

Race Condition Exploiter | *Python, AST Static Analysis, Multithreading* Link

- Built a TOCTOU (time-of-check-to-time-of-use) vulnerability research toolkit with vulnerable/patched sample pairs and a CLI race harness that spawns concurrent attacker threads to land symlink-swap exploits and measure exploit hit rate.
- Developed an AST-based static scanner using Python's `ast` module to flag check-then-use vulnerability patterns from source without execution, paired with a live in-browser demo; MIT-licensed, 13 commits.

API Rate Limiter | *Python, FastAPI, Redis, Docker* Link

- Implemented 4 rate-limiting algorithms (fixed window, sliding window log/counter, token bucket) behind one interface in FastAPI, with swappable in-memory/Redis backends and atomic operations (`asyncio.Lock`, Redis Lua scripts) to eliminate a check-then-consume race.
- Shipped a live GitHub Pages demo visualizing traffic against each algorithm in real time and validated behavior with 21 pytest tests covering concurrency guarantees and API responses (429 + Retry-After).

AI Autonomous Defense Agent | *FastAPI, PostgreSQL, ChromaDB, OpenAI API, Docker* Link

- Architected an async FastAPI backend for an autonomous Security Operations Center agent implementing a full ingest → detect → analyze → decide → respond pipeline across 42 REST endpoints and an 11-table PostgreSQL schema, with JWT authentication, role-based access control, structured logging, and Dockerized multi-service deployment.
- Built a 6-rule detection engine mapped to MITRE ATT&CK and a RAG-grounded LLM analyst (ChromaDB vector store + OpenAI API) that scores threats 0–100 and queues human-approval-gated remediation actions with rollback, safety guardrails, and an immutable audit trail; validated with 169 offline tests.

Education

Manipal Institute of Technology Bengaluru, Karnataka

B Tech in Computer Science Engineering (Cyber Security) *Jul 2023 – Present*

- 7th Semester Student, SGPA : 8.61 , CGPA 7.93 – Graduating in 2027, Never had a backlog

Delhi Public School East Bengaluru, Karnataka

Class X ICSE - Percentage : 93.33% — Class XII CBSE - Percentage : 83% *Jun. 2021 – Mar 2023*