SWAYAM MEHTA

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EDUCATION

MS Computer Science	Expected May 2026
Arizona State University	4.0 GPA
BTech Computer Science and Engineering	2020 - 2024
Vellore Institute of Technology	8.65 CGPA

SKILLS

Programming	Java, Kotlin, Python, HTML, CSS, JavaScript, SQL, C++
Frameworks/Libraries	Flask, NextJS, ReactJS, D3.js, REST, Pandas, Numpy
Tools/Technologies	Linux, Git, MySQL, MongoDB, AWS, Kubernetes, Prometheus, Grafana, Falco

EXPERIENCE

Vellore Institute of Technology: Research Intern   01/2024 - 05/2024

- Enhanced stock price prediction accuracy by optimizing *GAN-based models* with additional market indices and technical indicators, **lowering RMSE values by 40.21%** compared to previous research.
- Developed a web application integrating **real-time stock data**, **sentiment analysis**, with **Gemini-powered forecasting & chatbot**, enabling users to make informed investment decisions with a user-friendly interface.
- **Analyzed the impact of external events like COVID-19** on predictive models, demonstrating that traditional deep learning models (LSTM, GRU) outperformed GANs in highly volatile market conditions.

Hewlett Packard Enterprise: CTY Intern - High Performance Computing   01/2023 - 06/2023

- **Integrated 5 modular Kubernetes security tools** to perform static code analysis, identify compliance issues, detect threats and vulnerabilities and ensure runtime security for Kubernetes clusters.
- *Deployed Falco pods* to capture event metrics, *combining Falco Exporter with Prometheus*, ensuring robust threat detection by simulating and **mitigating 6 malicious system call scenarios**.
- Configured a **Falco dashboard in Grafana**, featuring custom visualizations for most frequently violated rules, high-priority alerts, metadata and occurrence rates of 150+ events, thus improving real-time incident response.

PROJECTS

cmd Play [ReactJS, Vite, TypeScript, Shell]   April 2025

- Engineered and deployed a gamified educational platform within 24 hours to enhance middle-schoolers' understanding of basic programming, cybersecurity and SQL; awarded **1st place at Innovation Hacks'25**.
- Scaled game logic and difficulty dynamically using custom state machines and AI-driven content generation (**via Gemini**); optimized cross-browser UX with **<1s load time** and implemented port-based parallel game hosting.

Knowledge Graph Generator [Streamlit, Flask, JavaScript]   January 2025

- Developed a tool that **extracts and visualizes relationships** from articles, newspapers, and research papers using **Google Generative AI** and **NetworkX**, enhancing text comprehension through interactive graphs.
- Built a web application and **browser extension**, enabling users to generate and download knowledge graphs directly from webpages for seamless real-time analysis.

SEO Rank Tracker [NextJS, MongoDB, Tailwind CSS]   November 2024

- Enabled users to **monitor Google search rankings** for domains and keywords using **SerpAPI**, with interactive graphs displaying rank trends over time, **enhancing SEO performance tracking**.
- Implemented **Google Auth** for secure access and automated rank updates with a **weekly cron job** ensuring consistent and up-to-date insights with minimal manual effort.

LEADERSHIP

IEEE Computer Society - VIT: Secretary   01/2023 - 12/2023

- Led a cross-functional team to launch **Chota Dhobi**, a laundry service tracking app that has **24000+ active users**. Streamlined user onboarding and drove **15% month-over-month user growth** through campaigns.
- Organized **HackBattle**, a 36-hour hackathon with **1,000+ participants**, managing logistics, workshops, and sponsorships, resulting in a **30% increase in engagement and funding**.

CERTIFICATIONS

- Microsoft Certified: Security, Compliance, and Identity Fundamentals