

Samarth Saxena

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SUMMARY

Third-year Computer Science student specializing in AI/ML and Full-stack Development with experience in Python, JavaScript, and machine learning implementation

EXPERIENCE

Siemens AG [Link](#)

Web development intern

July 2024 – Feb 2025

- Developed and maintained a backend system for the company web application. Leveraged problem solving skills to design a robust server-side logic, encryption and seamless integration with the frontend across 500+ users daily.
- Designed and managed a MySQL database using efficient data models. Established a secure connection between the backend and frontend for efficient data transfer.
- Enhanced the login and result pages making the interface more interactive and user friendly.

Technologies Used: Frontend (HTML, CSS, JavaScript), Backend (Node.js, Express), MySQL

TECHNICAL SKILLS

Programming Languages: C, Java, Python, SQL, JavaScript

Technologies/Frameworks: Node.js, Express, NLP libraries, Computer Vision, React

Databases: MySQL, MongoDB, PostgreSQL

Relevant Coursework: Machine Learning, Data Structures and Algorithms, Web Technologies, Software Engineering, Image Processing, GenAI

EDUCATION

- Bachelor of Engineering in Computer Science**, Vellore Institute of Technology Expected May 2027
Specialization in **AI and robotics** CGPA: 8.23
- Higher Secondary (12th Grade)**, Aditya English Medium School (78.2%) July 2022
- Secondary (10th Grade)**, Vibgyor High School (94.1%) July 2020

Certifications and Achievements

- Secured 1st place out of nearly 200 teams in a VIT-hosted hackathon sponsored by 5 companies including Thinkbridge by leading a team of 4 [Link](#)
- C Programming, IIT Bombay (87.5%) [Link](#)
- Node.js, Express, MongoDB & More: The Complete Bootcamp [Link](#)

PROJECTS

1. 'AlphaSignal' AI Trading Platform [Link](#)

- Engineered an **AI-driven trading platform** to produce automated trade recommendations by **analyzing real-time market data** and financial news using **trained ml models and intraday sentiment analysis**.
- Engineered a **custom NLP model** using PyTorch and Transformers to analyze and score market sentiment from financial news feeds.
- Leveraged a **multi-model ensemble** with Transformers (FinBERT) to process over 50+ financial indicators and perform **real-time sentiment analysis** on news data.

Technologies Used: AI/ML (PyTorch, Hugging Face, Scikit-learn), Backend (FastAPI), Data Processing (NumPy, Pandas, NLTK)

2. 'Patrika' web application [Link](#)

- Produced a Hackathon winning **full stack blogging platform** with AI tools in collaboration with 4 other teammates to enhance content and create cleaner posts.
- This website featured an **NLP based recommendation system**, AI based text refinement during blog creation reducing grammatical errors by 30-40% and included features such as disliking, liking, sharing a post, subscribing etc.
- Hosted the backend on **Vercel** and the frontend on **Render** achieving close to 99% uptime.

Technologies Used: Frontend (React.js), Backend (Node.js, Express), Supabase, Gemini API

3. Malpractice Detection System

- Built a **real-time face detection** system using MediaPipe and Flask to detect frontal and profile faces from webcam during quizzes, achieving over 90% accuracy.
- Introduced server-side analysis to count faces and estimate head orientation (left, right, down, centered) by fetching each frame.
- Delivered instant, color-coded feedback to users in the browser based on detection results.

Technologies Used: Python (cv2, MediaPipe, Numpy, time)