

Somya Agarwal

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EDUCATION

Vellore Institute of Technology, Bhopal

2022 - 2026

Bachelor of Technology in Computer Science GPA - 8.60/10

10th Standard - 89.4%

12th Standard - 89.25%

WORK EXPERIENCE

Machine learning Intern, Suvidha Foundation

May 2025 – July 2025

- Engineered the design and implementation of custom pipeline integrating source analysis, credibility filtering, and BERT-based summarization models, which flagged over 500 unreliable news articles per day.
- Achieved a +35% improvement in trust score and reduced fake news content in summaries by over 50% through rigorous evaluation.
- Built a source analysis pipeline using credibility filtering and BERT based summarization models, decreasing the average summarization processing time by 15%, enabling faster content assessment.

Software Developer Intern, Deeporion Technology

October 2024 – January 2025

- Developed a real-time sentiment analysis engine (AngularJS, Java, and MySQL), processing 25k+ customer reviews daily; reduced feedback loop by 40%.
- Improved MongoDB and PostgreSQL queries across 10+ apps, reducing retrieval time by 35 seconds using optimized indexing and joins.
- Collaborated with cross-functional teams to deliver backend services in an agile environment, demonstrating ownership and bias for action.

SKILLS AND EXPERTISE

Languages	: Python, JAVA, C, C++, HTML5, CSS3, JavaScript
Databases	: MySQL, PostgreSQL, SQLite, Oracle DB, MongoDB
Cloud Technologies	: AWS (Lambda, API Gateway, IAM, EC2, JavaScript SDK)
Frameworks and Tools	: GIT, REST, Spring Boot, Node.js, React.js, RESTful APIs
CS Fundamentals	: Data Structures, Algorithms, OOP, Operating Systems

ACADEMIC PROJECTS

CrisisWatch - AI-Powered Crisis Mapping Platform

August 2025

- Designed a full-stack crisis mapping platform with **React, FastAPI, and PostgreSQL/POSTGIS**, enabling visualization of real-time disaster incidents with 1.5-3 seconds latency.
- Implemented a robust **PostgreSQL + Alembic migration system**, ensuring 100% database scheme version control and smooth CI/CD pipelines.

Carbon NFT Marketplace

April 2025

- Structured a full-stack **decentralized marketplace** where users earn blockchain-based NFT badges for purchasing eco-friendly products, integrating sustainability with Web3.
- Built and deployed **ERC-721 smart contracts** on the Polygon Testnet using Solidity and Hardhat, enabling secure NFT minting tied to carbon footprint reduction.

Crime-Dashboard – Crime Mapping and Analysis Platform for India

November 2024

- Designed a web-based crime mapping platform for India using geospatial data visualization and interactive filters, leading to identification of 10 high-risk areas and informing resource allocation strategies for local law enforcement.
- Enabled regional and type-based exploration with 3000+ user interactions, demonstrated real-world public safety use case.

CERTIFICATIONS

- Full Stack Development from Apna college | Coursera Frontend verified from John Hopkin's University
- GEN AI (IBM) | Java Developer Professional (OCP)

ACHIEVEMENTS

Smart India Hackathon

- Led team of 4 in developing a prototype ranked in top 5 out of 200 submissions; contributed to backend and ML modules.

HackOnBlocks

- Directed a standout prototype ranked as one of the top 5 projects out of 150+ teams, demonstrating strong designs and execution.