PALLAVI SINHA
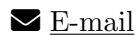
✉ E-mail in LinkedIn ○ GitHub ⊕ Portfolio

Education

Maharaja Surajmal Institute of Technology, Janakpuri, New Delhi **2021-25**
Bachelor of Technology in Electronics and Communications CGPA: 8.64
Minor in Machine Learning and Data Analytics

Experience

National Informatics Center | *Summer intern* *July 2024*

- Worked on proof-of-concept redesign of eShram.
- Reworked CMS frontend with cleaner UI/UX flows and responsive layouts using HTML/CSS/JS. Integrated with existing PHP-MySQL backend via REST APIs, and containerized the final deployment using Docker.
- **Tech stack used :** *Docker, REST API, PHP, MySQL, Relational Database, HTML/CSS/JS*

Projects

PsyFer | *Flask (Python), Mistral 7B, Tailwind CSS, Framer motion, Axios, React.js, Figma* **GitHub link**

- Figma designed a web application for a scalable AI handwriting analysis platform using Flask and Docker; deployed a RESTful microservice pipeline supporting 50K+ analyses with secure image handling.
- Designed complete UI in Figma aligned with accessibility and responsiveness guidelines; implemented in React with Tailwind and animation using Framer Motion.
- Resolved performance bottlenecks and bugs across frontend and backend pipelines.

Semantra | *Python, FastAPI, LangChain, Mistral 7B, REST API, Qdrant vector database, Docker* **GitHub link**

- Engineered a production-grade FastAPI backend for real-time (<30s) biomedical fact-checking; achieved 95%+ citation accuracy using Qdrant vector DB and Mistral 7B.
- Built scalable REST APIs to enable document-to-claim pipelines. Designed the system as a modular RAG pipeline using LangChain and SPECTER2.
- Implemented a GitHub Actions workflow to periodically ping the deployed FastAPI service on Render, preventing cold starts and ensuring consistent low-latency responses under load.

Skills

DevOps & Deployment:	Docker, GitHub Actions, CI/CD, PlayWright
Programming Languages:	Python, C++, JavaScript
Backend & Cloud:	Flask, FastAPI, Node.js, REST APIs
AI/ML & Infra:	LangChain, Mistral 7B, SPECTER2, Qdrant
Developer & Design Tools:	VS Code, GitHub, Figma
Databases & Storage:	MySQL, MongoDB
Frontend Development:	HTML, CSS, Tailwind CSS, React.js

Achievements

Smart India Hackathon Winner **Dec. 2023**

- Developed NyAI, a legal documentation assistant which simplifies legal jargon for individuals and small businesses.
- Led UI/UX design lifecycle: from early mock prototypes to high-fidelity desktop Figma designs, aligning with domain-specific needs.
- Integrated Google OAuth2-based user authentication (Node.js), and explored feasibility of Aadhaar-based eKYC, demonstrating initiative in real-world govt-aligned auth flows.

BNY Code Divas 2025 − Round 1 Qualifier **Feb. 2025**

- Qualified in the top percentile among 92,000+ candidates in BNY Mellon's national women-in-tech hiring challenge.

Code4Cause Hackathon runner up **Oct. 2023**

- Led a 6-member backend team during Code4Cause Hackathon; coordinated web application development and integration under 36-hour time constraint.