

PALLAVI SINHA

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Education

Maharaja Surajmal Institute of Technology, Janakpuri, New Delhi

2021-25

Bachelor of Technology in Electronics and Communications

CGPA: 8.64

Experience

National Informatics Center | Summer intern

July 2024

- Worked on proof-of-concept redesign of eShram CMS.
- Enhanced user experience and journey by redesigning UI for optimal experience and deployed 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/C++, JavaScript, Data Structures and Algorithms

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, Relational Databases

Frontend Development: HTML, CSS, Tailwind CSS, React.js

Achievements

Smart India Hackathon

Dec. 2023

- Led UI prototyping (Figma) and implemented OAuth-based user authentication (Node.js) for a nationally winning SIH solution.

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.