Nainsi Gupta

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Email ID: nainsigupta438@gmail.com | Portfolio

GitHub: https://github.com/Nainsi-6/

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Education

B.Tech. in Computer Science and Engineering 2022-2026

Vellore Institute of Technology | CGPA: 8.52/10

Technical Skills

Languages: C++, Python, JavaScript, SQL

Frameworks and Libraries: Scikit-learn, Pandas, NumPy, FastAPI, LangChain, Seaborn, TensorFlow, Keras, React.js, Node.js

Data Science & ML: Supervised/Unsupervised Learning, EDA, Feature Engineering, Model Evaluation, RAG, LLMs

AI Model APIs & Platforms: Gemini API, Hugging Face, Open AI

Databases: MongoDB, MySQL, PostgreSQL, Vector Databases

Tools & Platforms: Git, GitHub, VS Code, Supabase, Vercel, Render, Jupyter Notebook, AWS, Excel, Power BI, Tableau

Internship Experience

AI Engineer Internship | PearlThoughts (Remote) Jan 2026 – Present

- Built a code intelligence & RAG-based system to index and query the ERPNext codebase using AST analysis, embeddings, and ChromaDB, enabling accurate, code-grounded understanding of large legacy systems.
- Implementing AI-assisted code intelligence tools aligned with a standardized RAG and context-generation pipeline, supporting analysis and modernization of large legacy codebases in a team setting.

Software Development Engineer Intern | Bluestock Fintech (Remote) Jan 2025 – Feb 2025

- Developed a React.js and Node.js-based admin dashboard for IPO management, reducing data entry errors and improving the market disclosure process within the compliance department.
- Collaborated on a production-level IPO web application and REST API used by internal teams, utilizing GitHub for version control and following rigorous code review practices to maintain industry-standard quality.

Projects

CompetitorScan - AI Market Insights & Sentiment | Next.js, Node.js, Python, PostgreSQL, NLP Oct,2025

- Architected a 3-tier microservice platform (Next.js, Express.js API, Python ETL) to track, analyze, and visualize actionable intelligence (Share of Voice, Net Sentiment Score) for competing startups.
- Implemented an NLP model using Zero-Shot Classification to solve contextual ambiguity, accurately assigning targeted sentiment when multiple competitors (e.g., "Swiggy" vs. "Zomato") are mentioned in one article.
- Built a high-performance dashboard with React Query, debounced search, and server-side pagination for real-time insights.

Autonomous QA Agent (RAG-Powered Test Generation) | Python, FastAPI, LangChain, ChromaDB Sep, 2025

- Designed a Retrieval-Augmented Generation (RAG) pipeline to generate software test cases and executable Selenium scripts from project documentation and web page structure.
- Implemented dual grounding with semantic retrieval and HTML parsing, minimizing LLM hallucinations and enabling accurate element identification and stable test execution.
- Built a scalable FastAPI backend with ChromaDB vector storage and integrated LLM orchestration via LangChain for traceable, context-aware test generation workflows.

Traffic Forecasting using Graph Convolution - LSTM Model | TensorFlow, Keras, StellarGraph Mar, 2025

- Developed a hybrid GCN + LSTM model for traffic flow prediction, effectively capturing both spatial relationships between road networks and temporal traffic patterns.
- Performed data preprocessing and feature engineering using NumPy and Pandas, including train test splitting, normalization, and sliding window sequence generation for time series modeling.
- Represented the road network as a graph using distance-based adjacency matrices and evaluated performance using MAE and MASE, improving prediction accuracy through spatio-temporal modeling.

Achievements

Hackathon Recognition - Providence Leap Ideathon: Cleared the Second Round and recognized as a Next-Gen Thinker for designing an SMS/voice-enabled healthcare web app that improved data accuracy and enabled 3x wider reach in low-connectivity, underserved communities.

HP Power Lab 2.0: Cleared the Second Round, now in the Prototype Round, designing an AI-driven IoT Traceability System (Smart Drainer AI) to standardize used oil collection data and ensure full EPR compliance for the circular economy.

Certifications

- OCI 2025 Certified Generative AI Professional – Oracle University (Oct 2025)
- OCI 2025 Certified Data Science Professional – Oracle University (Oct 2025)