Paridhi Agarwal

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○ GitHub | ⊕ Website | in LinkedIn

Experience

Technical Consultant   Jan 2025 - Present

Genpact — Noida, India

- Built a multi-agent RAG system using **LangChain**, **Streamlit** and **Model Context Protocol (MCP)** that reads complex case studies and answers user queries through dynamic collaboration between specialized agents.
- Designed and orchestrated **Reader**, **Categorizer**, **Validation** and **Self-healing** agents, enabling structured extraction of business challenges, solutions, outcomes, and use cases from unstructured documents.
- Integrated metadata-filtered retrieval using **ChromaDB** and agent tool routing, enabling file-specific QA by directly fetching relevant vectors from **JSON metadata**, reducing redundant agent execution and improving response time.
- Developed a full-stack **Travel Booking System** as a training POC using Java (Spring Boot), React.js, and MySQL, enabling passengers to book buses, trains, and flights with real-time seat availability.
- Implemented secure authentication and authorization using **Spring Security** with **BCrypt** encryption, including passenger login and admin access control.
- Designed **RESTful APIs** and integrated search filters, seat selection logic, and booking workflows with admin panel support for transport management and reporting.

Research Intern   May 2023 - June 2023

CSIR - NPL — New Delhi, India

Utilized advanced machine learning techniques, including deep learning and LSTM networks, to develop accurate predictions for UT1-UTC and LOD. Applied the Prophet framework to capture intricate temporal dependencies and improve forecasting accuracy. **(Research paper)**

Projects

- **Startup Idea Validator (July 2025)** Built an AI agent using LangChain, Google Gemini Pro, and Google Agent Development Kit, with a Streamlit frontend, to validate startup ideas via autonomous web search, market analysis, and SWOT generation.
- **Pixel - Blockchain Implementation (May 2025)** Implemented a private blockchain in Java with a Next.js dashboard for real-time visualization of blocks and transactions.

Skills/Tools

Programming Languages	Java, C++, Python
Databases	MySQL, PostgreSQL
Frameworks/Libraries	FastAPI, Hugging Face, Spring Boot, Spring Security React.js, Next.js, Express.js
LLMs/AI Tools	Generative AI, LangChain Agents, CrewAI, OpenAI API, FAISS, ChromaDB
Tools/Platforms	Postman, Eclipse IDE, IntelliJ IDEA, VSCode, Streamlit, Git
Architecture	Microservices, REST APIs
Concepts	Data Structures, Algorithms, Object-Oriented Programming

Education

B.Tech(CSE) with Spec. Hons. (AI/ML)	Amity University, Noida	2020-2024