





Rahul Tripathi

rahul.psit.ec@gmail.com | +91-9910057763 | GitHub: rahul-trip | LinkedIn: rahult18

Summary

Seasoned GenAI Architect and active Open Source contributor to LangChain and Pebblo, with 10 years of software development experience, including 3 years focused on Agentic AI. Expert in LLM orchestration, model optimization, and Azure OpenAI deployment. Passionate developer utilizing LangGraph, LlamaIndex, and CrewAI to deliver scalable, high-impact AI ecosystems.

Skill highlights

Category	Skills/Contributions
Generative AI & LLMs	LangChain, LlamaIndex, LangGraph, LangSmith, Azure OpenAI, LLM Fine-tuning & Instruction-tuning, RAG Systems, AI Agents (ReAct, Tool Calling, MCP), Skills, Connectors, Data loaders, Prompt Engineering, Model Selection & Evaluation, Agentic AI, Transformers, LLM pre-training, Fine-tuning, Instructions-tuning, vLLM
Vector Databases	Milvus, Weaviate, Chroma, Pinecone, Quadrant
Backend & APIs	Python (FastAPI, Pydantic), TypeScript, Bash, Data Processing: NumPy, Pandas, ETL Pipeline Design, Schema Design
Databases	PostgreSQL, MongoDB, Neo4J, Elasticsearch/OpenSearch
Cloud & DevOps	AWS (Lambda, EC2, SageMaker, Bedrock, EventBridge), Azure AI Services, Google Cloud Services
System Design	Microservices, Event-Driven Architectures
Software Development	Git, Linux, Jira, Jenkins
Open Source Contributions	langchain, langchain-google, Seagate/cortx, llama-index, Pebblo

OpenSource contributions

- langchain
- langchain-google
- Seagete/cortx llama-index
- Pebblo

Project Summary

Associate Manager GenAI - Go Digital Technologies LLC.
Client: Duke Energy

- Worked on an AI-powered application called Smart Reporting, wherein users can query a database by asking questions in natural language. Handled the natural language to SQL translation while implementing necessary security measures against SQL injection vulnerabilities.
- Developed DocBot, an Agentic AI document RAG system that allows users to search and interact with the latest versions of stored documents. Implemented session-scoped context for temporary document uploads and enforced document-level RBAC to prevent data leakage.
- Successfully transitioned both the Smart Reporting and DocBot applications from initial POCs to fully functional MVPs.

Sr. GenAI Developer - Vaisesika
Client: ***Thermo Fisher Scientific***

- Developed an AI-Powered Platform called Service Virtual Assistant, an LLM-based chat application targeted for service technicians. Integrated it with the Product documentation and the Service tickets database. Led to an increase of 65% efficiency in the resolution provided by service technicians.
- Developed a Tender & Bids matching system, which scrapes all the available tenders and matches them with the available products and produces a Score and Remarks on the matching. It utilizes a standalone Agent to match products in the system prompt and provide Scores and Remarks, automating all manual tasks.

GenAI Developer - Aziro (formerly Msys)
Client: ***Cisco***

- AI-Powered Platform Development: Built an internal AI platform designed as a no-code solution for creating and managing AI agents.
- Integration Capabilities: Enabled functionalities like Retrieval-Augmented Generation (RAG) and integrations with systems such as JIRA and CDET for data access and management.
- Tool Deployment: Developed features for deploying tools with minimal coding to provide seamless integrations with defect tracking systems and other web resources.

Client: ***Daxa.ai*** ***as an*** **Open Source Python Contributor for Langchain & Llama-index**

- Developed Daxa, a data-first platform for Gen AI governance and security.
- Added “Pebblo” components to a couple of open-source AI frameworks like langchain and llama-index.
- This enabled Data Transparency, Compliance, and Security within Gen AI applications.
- Built context and identity-based LangChain components (loaders, retrievers, callback handlers, agents, and tools) for secure data ingestion and management.
- Hence, restricting any harmful/sensitive data exposure by controlling prompt, response, and context flow.

Worked on ***Deltron Pipelines [POC]***

- Developed Spark-based structured streaming pipelines on Databricks for live data ingestion.
- Implemented Delta Live Tables to structure data into bronze, silver, and gold layers.
- Integrated processed data into Google BigQuery for analysis and reporting.

Client: ***Seagate*** *as an* **Open Source Python Contributor** at *CORTX*

- Developed a core Python open source utility Seagete/cortx library, enabling efficient distributed storage.
- Designed components like MessageBus and ConfStore for seamless inter-component communication.

Data Engineer - Cognizant
Client: Kantar Media at *Yugo Reports*

- Developed and automated the backend for Yugo Reports, a sub-module of a big-data project focused on audience marketing and targeting.
- Created report generation modules to process panel data based on configuration requirements.
- Leveraged Python and AWS with Ubuntu to optimize backend processes and enhance data processing efficiency.

ETL Developer - TCS
Client: Ericsson at *Eniq-Events*

- Contributed as a developer at Eniq-Events, a telecom network service management application for multi-vendor, multi-technology environments.
- Implemented installations and upgrades for core software, platforms, and features, integrating over 21, third-party tools like Java, Tomcat, and SAP ASA/IQ.
- Delivered end-to-end development, from analysis to code delivery, and designed test scenarios for unit and feature testing.
- Utilized tools like JIRA, Confluence, Jenkins, and Gerrit for defect tracking, collaboration, and code review.
- Managed server distribution and collaborated with cross-functional teams to optimize performance and resolve issues effectively.

Certifications

- Google Prompt Engineering: https://www.coursera.org/account/accomplishments/certificate/5JN1UEKL45T9
- Databricks Generative AI Fundamentals: https://credentials.databricks.com/c0f6c3d0-bcec-46fe-8056-eb008c8696ee
- Databricks Lakehouse Fundamentals: https://credentials.databricks.com/8282182b-9c4f-4198-84d5-b113536231dd

Education

- B.Tech (ECE) - PSIT Kanpur - UPTU - 2014