Dipanjan Kuila

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portfolio: https://dipanjankuila.github.io/portfolio/

GitHub: DipanjanKuila (Dipanjan Kuila) · GitHub

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SUMMARY

Generative AI Specialist: 3.4 years of expertise in LLM models, vector databases, and Azure AI Search.
Proficient in AI Frameworks: Skilled in LangChain, LlamaIndex, and GAN models for synthetic data generation.
Backend Developer: Strong hands-on experience with Python and Rest API for scalable applications.
Machine Learning and Data Science Expert: Hands-on experience with diverse machine learning algorithms and data science libraries such as NumPy, Pandas, Scikit-learn, TensorFlow.
AI Product Contributor: Played a key role in building GenAI products at ITC Infotech.
Passionate Innovator: Eager to tackle challenges and push the boundaries of AI technology.

SKILLS

Languages: python,Java
Databases: Postgre/SQL, MongoDB
Vector Databases: AstraDB, Azure AI Index
Machine Learning & Deep Learning: Scikit-Learn, TensorFlow, Keras, Deep Learning, Machine Learning, Time Series Analysis, Regression, Forecasting, Classification
Generative AI & NLP: Generative AI Tools, Generative Adversarial Networks (GANs), LLM,RAG, Multimodal, NLP, Agentic Workflow, Transformers,BERT, MCP
Frameworks & Libraries: LangChain, LangGraph, LlamaIndex,Langflow, Rest API(FAST API,FLASK)
Cloud & AI Services: Azure, AWS bedrock, AWS SageMaker,Ollama

WORK EXPERIENCE

Associate It consultant | ITC Infotech **sepetember 2022 – june2025**

AI/ML Project

- Developed, maintained, and enhanced Synthetic data generation models using GANs and VAEs to support advanced AI applications.

Gen Ai Project

- Conducted Multimodal analysis of documents containing images, tables, and text leveraging vision models for comprehensive insights.

Gen Ai Product Development

- Developed and maintained a Gen AI application for ITC Infotech utilizing GPT-3.5, GPT-4, GPT-4o, and GPT-4o Mini models, integrating Azure AI Search with the LangChain framework. Designed and implemented the backend using Python and FastAPI, leveraging the Retrieval-Augmented Generation (RAG) framework with extensive customization to meet client requirements. Utilized vector databases, including AstraDB and Azure AI Index, to enhance retrieval efficiency. Additionally, incorporated LangGraph to enable an agentic workflow for advanced automation and decision-making, ensuring efficient and context-aware responses with robust chat memory management.

Sr software developer| Sutherland Global **july2025 - Present**

Code Generation assistant product

- Developed an intelligent assistant that converts requirement documents into user stories, then generates code creation, API testing, and test case generation.
- Built the backend using FastAPI integrated with LangChain and LangGraph for orchestration.
- ntegrated Ollama open-source models for local LLM inference.
- Designed end-to-end automation pipeline from requirements to deployable code.

Leadership & Mentorship – GenAI & Agentic AI

- Delivered structured GenAI and Agentic AI training programs for freshers and college graduates.
- Provided hands-on mentoring in LLMs, LangChain, FastAPI, Ollama, and agentic workflows.
- Supervised capstone GenAI projects, ensuring industry-ready architecture and deployment standards.
- Successfully transitioned trained freshers into live GenAI projects, improving delivery capacity while reducing dependency on external hiring.

PERSONAL PROJECTS

CareNexus AI – Intelligent Healthcare Platform(https://www.linkedin.com/posts/dipanjan-kuila_genai-

healthcareinnovation-agenticai-activity-7404912634971471872-i_Eu?utm_source=share&utm_medium=member_desktop&rcm=ACoAADWSonQBs36RYLUgHku_cLrZVDisU_tZ6i0*)*

- Built a **secure, AI-powered hospital intelligence platform** connecting patients, doctors, and hospital systems end to end.
- Implemented **token-based patient sessions** with Aadhaar-backed identification to ensure continuity of care across visits.
- Designed **LLM-powered agentic workflows** to automatically retrieve historical medical records and generate **structured treatment summaries** for doctors within seconds.
- Enabled doctors to update treatments per visit, creating **longitudinal patient histories** independent of patient recall or lost prescriptions.
- Developed a **patient symptom analysis agent** that recommends the correct medical specialist and available doctors.
- Powered entirely by **on-prem open-source LLMs (Ollama)** using **FastAPI + LangGraph**, ensuring data privacy, security, and zero third-party data sharing.
- Reduced manual documentation effort and improved clinical decision-making efficiency for healthcare providers.

Multi_Ai_Agent_LangGraph(GitHub - DipanjanKuila/Custom_Ai_Agent_Langgraph)

- Developed a Custom AI Agent integrated with Azure and Google APIs, leveraging the Azure OpenAI model and Google SERP API to create a dynamic, intelligent workflow. Designed and implemented an agentic architecture with the LangGraph framework, enabling seamless orchestration of multiple specialized agents for automated decision-making and data processing. This AI-driven architecture enables automated decision-making, real-time data extraction, and intelligent error handling, making the system highly adaptive and efficient.

Mcp_Agent_fastapi (GitHub - DipanjanKuila/MCP_AGENT_FASTAPI)

Developed a modular AI-powered tool framework by integrating FastAPI with MCP (Modular Command Protocol). Converted multiple REST APIs into intelligent tools consumable by LLMs using `fastapi-mcp`. Enabled dynamic schema handling, memory-based chat interface with `MCPAgent`, and robust user data management via local JSON. Also demonstrated real-time interaction with a locally hosted MCP server.

Rag_Multi_Ai_Agent(GitHub - DipanjanKuila/Multi_Ai_Agent)

- AI-based document question answering system integrating various sources. Implemented an AI-based question-answering agent with Langchain and Azure Open AI, supports document uploads and advanced question routing and integration with external sources like wikipedia and Arxiv to enrich responses.

Convolution_Neural_Network (GitHub - DipanjanKuila/Convolutional-Neural-Network-)

- Implementation of CNN for image classification using TensorFlow and Keras. Built and trained a Convolutional Neural Network CNN to classify images of cats and dogs with high accuracy.

ACHIEVEMENTS

Certificate of Appreciation from ITC Infotech
(https://drive.google.com/file/d/14DDHacHygoo2U5fSRM7TpRKanayOz3fJ/view?usp=sharing)

- Played a key role in building innovative GenAI products through expertise in LLM models and advanced AI techniques.
- Recognized for demonstrating responsibility, promptness, efficiency, and reliability in task execution Certificate ID ITCIUR7G452321, 31-12-2024.

Most Valued Player (MVP) Award – Q1 FY26 from Sutherland Global – For leading in-house GenAI training, mentoring freshers, and driving cost savings.
*(Certificate: **https://drive.google.com/file/d/1B514O3GLPlB4EqKwb1GdIueB94CYwuGp/view**)*

Language

- English, Hindi, Bengali

Education

Guru Nanak Institute Of Technology, Kolkata(2018-2022)

- B. Tech in Electrical Engineering, 8.20