

RAHUL SAMANT

+91-9368884561 / rahulsamantcoc2@gmail.com / linkedin.com/in/ rahul-samant-kb37 / github.com/rahulsamant37 | Portfolio

OBJECTIVE

Generative AI Engineer with expertise in developing agentic AI systems, leveraging **LangChain, LangGraph, and retrieval-augmented generation (RAG)** techniques. Experienced in building production-ready AI applications using FastAPI, vector databases, and cloud services including AWS. Skilled in AI-driven automation, tool integration, and creating conversational AI experiences.

WORK EXPERIENCE

Generative AI Engineer

Embedded Control Systems | Internship | Feb 2025 - Present | Chandigarh, India (On-site) (DEMO)

- Developing an embedded control system to launch and manage 50+ website startups using LangChain and LangGraph for intelligent, context-aware content generation and user support
- Technologies:** LangChain, LangGraph, Next.js, FastAPI, MongoDB, AWS EC2, Vercel, Convex
- Architecting the system with Next.js frontend and FastAPI backend, integrating with MongoDB for scalable data storage.
- Implementing CI/CD pipelines with GitHub Actions for deployment to AWS EC2 and Vercel.
- Integrating Convex for real-time data synchronization and leveraging AI to simplify complex technical processes for non-technical users.

Chatbot Developer

Xzayogn | Internship | Jan 2025 - Feb 2025 | Remote

- Architected and developed **agentic AI systems** capable of autonomous multi-step task execution with reasoning and decision-making capabilities.
- Technologies:** LangChain, LangGraph, FastAPI, Python, AWS Lambda, AWS EC2, AWS S3, Next.js, TypeScript
- Leveraged **LangChain and LangGraph** to design stateful, multi-agent workflows with persistence, memory, and cyclic execution capabilities.
- Optimized agents for performance, adaptability, and reliability, ensuring efficient goal achievement.
- Integrated solutions with **AWS Lambda, EC2, and S3** for scalable deployment.

Python Developer Intern

Infosys Springboard | Sept 2025 - Jan 2025 | Remote

- Developed a robust web scraping application to automate data extraction from e-commerce platforms, achieving 99% accuracy in data extraction.
- Technologies:** BeautifulSoup, Playwright, Streamlit, Flask, LangChain, Hugging Face, RAG
- Utilized **Playwright for web scraping**, BeautifulSoup for HTML parsing, and LangChain with ChatGenerativeAI for extracting specific product details.
- Deployed the application using **Streamlit and LangServe** for a user-friendly interface.
- Enhanced scraping speed by **30% using multithreading**, enabling data extraction from over **50 unique websites**.

PROJECTS

LanggraphAgenticAI - Stateful AI Agents | Lead Developer

(GitHub Link)

- Created a stateful agentic AI application demonstrating implementation of conversational AI agents with tool integration.
- Technologies:** Python, FastAPI, OpenAI API, SerpAPI, SendGrid, LangChain, Streamlit.
- Designed a modular architecture with **graph-based workflow management** and state management.
- Integrated multiple LLM support with Groq models and implemented tool integration with Tavily search capabilities..
- Built a user-friendly interface with Streamlit for easy interaction.
- Impact:** Reduced travel planning time by **85%**, increased itinerary accuracy by **97%**, and processed **200+** successful search queries.

AI Voice Coach - Interactive Coaching Platform | Lead Developer (DEMO)

(GitHub Link)

- Developed an intelligent voice coaching platform leveraging real-time transcription and AI-generated feedback.
- Technologies:** LangGraph, LangChain, Groq API, Tavily API, Streamlit, Python.
- Designed a modular architecture with **graph-based workflow management** and state management
- Implemented **live voice coaching** with AssemblyAI for accurate speech-to-text conversion.
- Built a user-friendly interface with Streamlit for easy interaction.
- Impact:** Achieved **98.7% transcription accuracy**, reduced coaching session preparation time by **70%**, and served **150+** interactive sessions with an average user satisfaction rating of **4.8/5**.

EXTRA CURRICULAR ACTIVITIES & ACHIEVEMENTS

- Actively contributed to renowned repositories, including **Langchain, LangGraph Gradio** and **Wagtail**, enhancing their functionalities and supporting community-driven development.
- Successfully completed **Hacktoberfest** by having **4 Pull/Merge Requests accepted**, demonstrating commitment to collaborative open-source contributions.
- Shortlisted among only 25 candidates for the prestigious Data Science program at **IIT Kharagpur**, a highly selective achievement in a competitive field.

TECHNICAL SKILLS

Generative AI: LangChain, LangGraph, RAG, RLHF, LLM Fine-tuning, Attention Mechanisms, Hugging Face Transformers, llamaindex

AI/ML: TensorFlow, PyTorch, scikit-learn, XGBoost

Backend/API: FastAPI, Flask, REST APIs

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, Elastic Beanstalk), Vercel, Docker, Git, GitHub Actions, Nginx, SSL, MicroServices

Data Engineering: NumPy, Pandas, BeautifulSoup, Playwright, Data Pipelines, Apache Airflow, Astronomer, ETL pipelines, MongoDB, PostgreSQL

Statistical Techniques: Hypothesis Testing, Statistical Significance, Regression, Clustering, Model Optimization

Core Competencies: Model Training and Deployment, Transformer Models, API Integration, OOP, Feature Engineering

Soft Skills: Communication and Interpersonal Skills, Team Leadership, Analytical Thinking

EDUCATION

Punjab Engineering College

Bachelor of Technology in Computer Science Engineering

City Convent School (Percentage: 95.00%)

Senior Secondary Education, CBSE

City Convent School (Percentage: 90.00%)

Secondary Education, CBSE

Chandigarh

2022 – Present

U.S. Nagar, Uttarakhand

2020– 2021

U.S. Nagar, Uttarakhand

2018 – 2019