

Amit Kumar

Senior Data Scientist

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PROFESSIONAL SUMMARY:

- **Senior AI/ML & Conversational Agent Developer** with **7 years** of experience architecting and deploying scalable, **production-grade GenAI** and Web applications, with proven success leading full SDLC ownership — from requirements gathering through architecture and full-stack delivery.
 - Deep expertise in Advanced GenAI Frameworks including **Classic RAG, Agentic RAG, LLM Fine-Tuning, Agentic AI, and Vector Databases**, with hands-on proficiency in orchestration tools such as **LangChain, LangGraph, LlamaIndex, Google ADK (Agentic Development Kit), and OpenAI APIs** to build autonomous, multi-agent conversational systems.
 - **Delivered 7+ enterprise-scale chat and voice agents** using **Google Dialogflow CX, Customer Agent Studio (CXAS), CXAS-SCRAPI, IBM Watson, MS Azure Bot Service, and Amazon Lex**.
 - **Specialised in Conversational AI Optimisation** through automated evaluation pipelines and expert methodologies including Hill-Climbing, Containment, Golden Data Tests, and multi-layered Evals — backed by a strong technical foundation in core data science and ML libraries (Python, NLTK, SpaCy, NumPy, Pandas, Scikit-Learn).
 - **4 years** of Cloud & DevOps experience managing **Azure DevOps/DevSecOps pipelines**, supporting end-to-end delivery from development through production deployment.
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SKILLS:

- **Languages & Frameworks:** Python, Flask, JavaScript, FastAPI, LangChain, LangGraph
 - **AI/ML/Gen-AI:** Conversational Agents, Agentic AI, Google ADK, MCP, A2A, NLP, LLM Fine-Tuning, RAG, LangChain, Google Antigravity, Machine Learning, AutoML, Vertex AI
 - **Database & Tools:** Postgres, Google BigQuery, Redis, FAISS, CosmosDB, SQL, Nginx, Minio, RabbitMQ
 - **Chat & Voice Agents Development:** Dialogflow CX (DFCX), Google's CX Agent Studio, Agent Assist, CCAIP, IBM Watson, Amazon LEX, ChatGPT, Custom NLP Engine, Amazon Alexa Custom Skill Builder, CXAS-SCRAPI
 - **DevOps/DevSecOps:** Docker, Docker Swarm, CI/CD, SAST/DAST Scan, SonarQube, Prisma Cloud
 - **Cloud Monitoring & Automation:** AWS Lambda, CloudWatch, Prometheus, Grafana
 - **Cloud Platforms:** AWS, Microsoft Azure, GCP
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PROFESSIONAL EXPERIENCE:

Globant - Senior Data Scientist, Pune

Jan 2025 - Present

Client: Google

- **Served as Module Lead Developer** for a high-volume **GenAI** deployment managing **18M+** total CX sessions, optimised end-to-end conversation flow to maintain a first-in-class **75%** GenAI coverage rate, while maintaining strict latency performance under **3-5 seconds**.
- Spearheaded the optimisation of complex payment and billing workflows, increasing the client's mobile payment success rate by **22%** (from 70% to 92%) and streamlining the user journey to an average of just **1.39** payment attempts.
- **Architected a massive multi-agent ecosystem** utilising **Google's CXAS** (Customer Agent Studio), orchestrating a complex network of **45 sub-agents** integrated with **61 distinct tools** to deliver seamless, contextual user experiences.
- Driven conversational quality and optimisation by leading agent evaluations and hill-climbing methodologies, leveraging advanced automation tools such as **CXAS-SCRAPI** and **Google Antigravity**, reducing error volumes by 38%.

- Acted as a Google Advisory Expert for three external clients, building a multi-agent system using **Google ADK, MCP, A2A and Agentic RAG**. This helped automate their manual process by 70% and reduce turnaround time by almost 80% to 85%.
- Designed and deployed scalable cloud infrastructure using GCP services, including **Cloud Functions, Pub/Sub, BigQuery, Vertex AI, Log Explorer, and Dataform** to support high-throughput conversational data pipelines.

Atos Syntel - AI/ML Engineer, Pune

[June 2023 - Jan 2025](#)

Client: Novartis

- **Architected and deployed** a Generative AI-driven medical data retrieval platform for healthcare providers and patients, integrating advanced RAG pipelines to streamline clinical insights, which increased data-driven decision-making efficiency by 60%.
- Integrated Vector Database (FAISS & CosmosDB) to store processed patient data as a knowledge base, creating a robust and scalable knowledge base for efficient retrieval, enhancing retrieval efficiency by 40%.
- Leveraged **LangChain, LangSmith** and **LlamaIndex** for orchestrating LLM workflows and efficient vector-based retrieval, enabling accurate, context-aware responses.
- Fine-tuned the **MedPalm2** Large Language Model (LLM) using patient-specific data, enhancing the model's performance, precision and grounding with client-specific patient data.
- Created a **RAG-based** framework that enables accurate and contextually relevant responses by combining the power of Vector DB with advanced reasoning capabilities.

Cognizant - Data Scientist & Chat/Voice Agent Developer, Pune

[Sep 2019 - May 2023](#)

Client: Pfizer, Sanofi, Papajohns & GMC

- Created a scalable framework for building custom chatbots using Python libraries such as **Flask, Scikit-learn, NLTK, Spacy, NumPy**, and **Hugging Face** transformers for advanced NLP tasks.
- Developed a framework for basic pre-processing of user queries, including **Spell Correction, Semantic Analysis, Stop-words removal, Lemmatization, N-grams, and Word Embedding**.
- Engineered and systematised a containment strategy by integrating the OpenAI Chat Completion API into external fallback intents, resolving complex or out-of-scope user queries.
- Developed an ensemble forecasting model utilising **XGBoost and Random Forest algorithms** to predict multi-region product sales with **87% accuracy**, directly optimising supply chain logistics and generating a **12% reduction** in inventory holding costs.
- Designed an automated feature engineering pipeline that handles missing value imputation, SMOTE-based class imbalance resolution, scaling, and categorical encoding, cutting manual data preparation time down by **70%**.

EDUCATION:

Bachelor of Engineering - Computer Science, 2015 - 2019

Rajeev Gandhi Technical University, Bhopal

CERTIFICATIONS & AWARDS:

- **Google Certified** - Generative AI Leader
- **Google Certified** - Professional Machine Learning Engineer (PMLE)
- **Microsoft Certified** - Azure AI 900
- **Solution Champion Award** - Cognizant Annual Delivery Excellence 2022
- **Shopping Reimagined Award** - Cognizant ProDIGI 2022 Winner.