

# Jitesh Rachamadugu

Hyderabad, India — +91-7075131523 — jitesh.rachamadugu50@gmail.com  
linkedin.com/in/jitesh-rachamadugu — fitmanindustries.in

## Professional Summary

AI Engineer specializing in **FinTech solutions development, web and mobile application development, and cloud enterprise systems**. Delivered **banking and financial AI solutions** across AWS, Azure, and GCP with strong **problem-solving and quantitative skills**. Known for effective **verbal and written communication**, collaboration with global teams, and innovation in agile environments.

## Education

**Gandhi Institute of Technology and Management (GITAM)**, Hyderabad, India Aug 2021 – May 2025  
Bachelor of Technology in Computer Science — CGPA: **7.86**  
Completed relevant coursework in Machine Learning, Artificial Intelligence, Data Structures, Algorithms, Database Systems, and Operating Systems

## Professional Experience

**Artificial Intelligence Development Intern** Jan 2025 – Mar 2025  
**HSBC, Pune, India**

- Built and deployed an **LLM chatbot pipeline** with Salesforce APIs on Azure, cutting financial query resolution time by **40%**.
- Fine-tuned Falcon-7B with LoRA adapters on 120k+ transcripts, embedding compliance policies to reduce non-compliant outputs.
- Designed multilingual intent recognition (**10+ languages**) with embeddings, enabling global banking accessibility.
- Migrated compliance datasets into **Azure SQL**, optimizing structured data analysis for regulatory teams.
- Enhanced **Azure DevOps CI/CD** with rollbacks and predictive failure modeling, achieving **zero deployment issues**.
- Contributed features in agile sprints, collaborating with developers, QA, and compliance teams to support multiple banking initiatives.

**Artificial Intelligence Research Intern** May 2024 – Sep 2024  
**IIITDM Kurnool, India**

- Developed a **hybrid pathfinding algorithm** on ROS robots in obstacle-rich environments, improving navigation efficiency by **20%**.
- Collaborated with peers to optimize algorithms, validate simulations, and **reduce runtime by 25%**.
- Built a benchmarking framework (C++/Python) with **auditable validation checks**, reducing approval cycle time by **70%**.
- Documented findings and contributed to **3+ projects**, improving clarity in reports by **30%**.

## Key Projects

**Real-Time Fraud Detection System** Oct 2024 – Dec 2024

- Engineered a **real-time fraud detection engine** on **AWS SageMaker**, achieving sub-**500ms latency** for financial transactions with integrated **complex event processing**.
- Integrated **AWS RDS feature store** with live validation checks, ensuring compliance with banking data standards.
- Containerized with **Docker** and automated CI/CD (**GitHub Actions**) for agile delivery and regression-tested releases.
- Partnered with fraud risk teams to **reduce false positives by 18%**, strengthening trust in automated financial monitoring.

**Enterprise-Scale RAG Pipeline for Aerospace Systems** Apr 2025 – May 2025

- Built a **RAG system** for 50k+ aerospace documents using **FAISS + Milvus**, improving retrieval accuracy by **35%**.
- Implemented structured/unstructured **ETL pipelines** with validation, strengthening **data quality checks**.
- Deployed with **Kubernetes on Azure**, ensuring secure access control and audit readiness.
- Scaled across clusters with **Databricks + Apache Spark**, ensuring reliable distributed processing.

**Scalable LLM Search for Financial Reports** June 2025 – Aug 2025

- Built a **semantic search engine** for 1M+ financial documents using **BERT + Milvus + Elasticsearch**, delivering **<500ms retrieval**.
- Integrated embeddings into **GCP Cloud SQL + Snowflake**, ensuring scalable access and validated analytics for audit teams.
- Designed dashboards with **Prometheus + Grafana** to track latency, usage trends, and operational stability.
- Collaborated with finance stakeholders to enable **data-driven investment decisions**, increasing analyst efficiency by **30%**.

## Tech Stack

- Programming & Development:** Python, Java, JavaScript (React, Node.js), SQL, **Web and Mobile Application Development**
- AI/ML:** PyTorch, TensorFlow, Hugging Face Transformers, RAG, LangChain, LoRA/PEFT, BERT, Falcon-7B, SHAP, LIME
- MLOps & Cloud:** AWS SageMaker, GCP Vertex AI, Azure AKS, Docker, Terraform, CI/CD (GitHub Actions, Azure DevOps), CloudWatch, Prometheus, Grafana
- Big Data & ETL:** Databricks, Apache Spark, **Hadoop ecosystem**, Apache Airflow, ETL/ELT pipelines, Data Warehousing
- Other:** OpenCV, ROS, Whisper, Streamlit, Vercel

## Certifications

- Oracle Cloud Infrastructure** 2025 Certified Data Science Professional
- Oracle Cloud Infrastructure** 2025 Certified Generative AI Professional

## Achievements & Core Skills

- Winner – HSBC Hackathon 2024 (**5,000+ applicants**) — Demonstrated strong **problem-solving, quantitative skills**, analytical thinking, and a consistently **positive attitude**.
- Best Presentation – Spring Startup Sprint 2024 — Recognized for clear **verbal and written communication** and effective **collaboration**.
- Best Research Paper – GITAM Ideathon 2024 — Showcased advanced **analytical thinking**, research-driven **problem-solving**, and presentation excellence.
- 3rd Place – UI/UX Hackathon, IIIT Hyderabad 2025 (**4,000+ participants**) — Applied **collaboration** and **creative communication** in design.