

Jitesh Rachamadugu

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Professional Summary

Software Engineer with experience in **secure application development, fraud prevention, authentication, and financial services**. Proficient in **Java, J2EE, Spring Boot, Hibernate, SQL/PLSQL, REST APIs**, and cloud platforms (**AWS, Azure, GCP**). Adept at delivering **scalable, reliable solutions** in **Agile/Scrum 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 coursework in Software Engineering, 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 **enterprise-grade chatbot** with Salesforce APIs on Azure, reducing query resolution time by **40%**.
- Fine-tuned Falcon-7B with LoRA adapters, embedding compliance policies and **authentication logic** into production-ready systems.
- Developed multilingual intent recognition for **10+ languages**, enhancing global accessibility and user experience.
- Migrated datasets into **Azure SQL**, streamlining structured data handling and reporting for compliance.
- Strengthened **CI/CD pipelines** in Azure DevOps with predictive failure modeling, achieving **zero production issues**.
- Ensured compliance with enterprise **security standards** across development and deployment workflows.

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

- Designed and implemented a **hybrid pathfinding algorithm** for ROS robots, applying **scientific methods and secure validation checks** to improve navigation efficiency by **20%**.
- Enhanced performance through optimization and simulation validation, **reducing runtime by 25%**.
- Built a C++/Python benchmarking framework with **auditable validation checks**, reducing approval cycles by **70%**.
- Documented results and contributed to **3+ group projects**, demonstrating **teamwork and peer supervision**.

Key Projects

Real-Time Fraud Detection System Oct 2024 – Dec 2024

- Engineered a scalable detection engine on **AWS SageMaker**, achieving sub-**500ms latency** with complex event processing.
- Integrated **AWS RDS feature store** with live validation, ensuring accuracy and compliance in **financial fraud monitoring**.
- Applied **containerization (Docker)** and automated testing (GitHub Actions) to streamline delivery pipelines.
- Partnered with fraud risk teams to strengthen **authentication**, mitigate risk, and secure financial transactions, reducing false positives by **18%**.

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

- Built a **retrieval-augmented generation system** for 50k+ aerospace documents, improving retrieval accuracy by **35%**.
- Developed validated ETL pipelines, improving **data quality and system reliability**.
- Deployed with **Kubernetes on Azure**, ensuring secure, audit-ready operations.
- Scaled performance with **Databricks + Apache Spark**, supporting distributed workloads effectively.

Scalable LLM Search for Financial Reports June 2025 – Aug 2025

- Implemented a **semantic search engine** for 1M+ documents using **BERT + Milvus + Elasticsearch**, enabling <500ms retrieval.
- Integrated embeddings into **Cloud SQL + Snowflake**, ensuring robust analytics and secure data access for audit teams.
- Designed monitoring dashboards (**Prometheus + Grafana**) to ensure system performance and reliability.
- Collaborated with finance stakeholders to deliver **30% efficiency gains** in compliance workflows.

Tech Stack

- Programming & Development:** Python, Java, J2EE, JavaScript (React, Node.js, Angular basics), SQL, PL/SQL, Oracle
- Software Engineering:** Spring Boot, Hibernate, Microservices, REST APIs, JUnit, Web Services (REST/SOAP), Messaging (Kafka/RabbitMQ basics), Test Automation
- AI/ML:** PyTorch, TensorFlow, Hugging Face Transformers, RAG, LangChain, BERT, Falcon-7B
- Cloud & MLOps:** AWS SageMaker, Azure AKS, GCP Vertex AI, Docker, Terraform, GitHub Actions, Azure DevOps
- Big Data & ETL:** Databricks, Apache Spark, Hadoop, Airflow, Data Warehousing
- Agile Practices:** Scrum, Kanban, SAgile environments

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**) — Delivered innovative, secure engineering solutions under tight deadlines by driving initiatives with a **proactive, high-energy approach**.
- Best Presentation – Spring Startup Sprint 2024 — Recognized for clear **communication**, technical insight, and effective collaboration in **Agile environments**.
- Best Research Paper – GITAM Ideathon 2024 — Demonstrated **scientific methods**, analytical reasoning, and the **ability to quickly learn and apply new technologies**.
- 3rd Place – UI/UX Hackathon, IIIT Hyderabad 2025 (**4,000+ participants**) — Achieved success through strong **teamwork, creativity, and proactive design solutions**.