

ARCHIT MANEK

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WORK EXPERIENCE

Oracle Corporation

Boston, MA

Software Engineer

February 2023 – Present

- Developed and optimized APIs for managing study and tenant data, streamlining backend integration and simplifying access to clinical metadata across systems using Java and SQL.
- Boosted unit test coverage from ~35% to 80% across critical modules using JUnit and JMockit, significantly reducing regression bugs during release cycles.
- Designed and implemented database schema changes using Liquibase to ensure smooth, version-controlled updates to production databases, improving system integrity and minimizing downtime during releases.
- Automated audit record collection and comparison processes using SQL, reducing manual verification time by 40% and improving data integrity.
- Collaborated across teams in India, the U.S., and Europe to troubleshoot data inconsistencies and improve backend stability for global clinical trial platforms.

Oracle Corporation

Boston, MA

Software Engineer Co-op

January 2022 – June 2022

- Designed and built a global dashboard using Grafana and Prometheus to monitor key metrics such as active tenants and active studies for Oracle's Clinical One product, improving operational visibility.
- Developed UI components for customer-training webpage of OJET app to significantly improve user experience.

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript

Libraries/Tools: Pandas, NumPy, scikit-learn, SQL, JUnit, Kafka, Git

Technologies: Oracle Database, Grafana, Liquibase, AWS

EDUCATION

Northeastern University, **Khoury College of Computer Sciences**

Boston, MA

Master of Science in Computer Science

December 2022

Concentration: Software Engineering

Relevant Coursework: Building Scalable Distributed Systems, Web Development, Foundations of Software Engineering, Database Management Systems, Object-Oriented Programming, Discrete & Data Structures, Algorithms, Data Management & Processing

Northeastern University, **D'Amore-McKim School of Business**

Boston, MA

Bachelor of Science in Business Administration

May 2019

Concentration: Finance and Entrepreneurship

PROJECTS

ClinicalOneGPT – AI-Powered Chatbot for Internal Oracle Hackathon

Python, Google Gemini API, RAG architecture, LLMs, Vector Databases, Streamlit

- Led the design and development of a Retrieval-Augmented Generation (RAG) chatbot to help users query Oracle ClinicalOne documentation via natural language.
- Built a pipeline for semantic search using document chunking, embeddings, and a vector database to enable accurate, real-time responses.
- Integrated Google Gemini LLM for proof of concept; proposed transition to OCI GenAI stack (embedding models, Cohere/Llama).
- Focused implementation on a complex section “Sponsors and CROs” spanning 900+ PDF pages, showcasing the chatbot’s ability to simplify dense technical content.
- Collaborated in a 4-person team to deliver a working MVP under time constraints, using Streamlit to demo the chatbot interface and present the solution to Oracle stakeholders.

Soccer Analytics Pipeline

Dagster, Pandas, Parquet | **In Progress**

- Built ELT pipeline for soccer event data using Medallion architecture and Dagster orchestration.
- Ingested StatsBomb match JSON and structured Silver-layer shots/events using Polars and Parquet.
- Engineered Gold-layer shot features (e.g., angle, distance, goal label) for downstream xG modeling.