

Muhammad Mustafa

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EDUCATION

Institute of Business Administration
Bachelor of Science in Computer Science

Karachi, Pakistan
June 2024

EXPERIENCE

Software Engineer

Feb 2024 – Present

Qordata, Inc.

Princeton, NJ

- Architected and deployed **Spring Boot** microservices with **CI/CD** pipelines and **Docker on AWS EC2**, accelerating **100K compliance reports** processing to 25 seconds, **slashing processing time by 90%** through strategic API optimization and ETL enhancements.
- Engineered secure **Java REST APIs** for deployed via **Docker on AWS EC2**, and delivered **Angular** components for compliance file management, streamlining **SAP Concur** integration and ensuring audit readiness.
- Led development of **AI/ML solutions** leveraging **Python, AWS SageMaker** for expense monitoring and auditing used by **30+ life sciences customers**, featuring **Computer Vision object detection models (96% accuracy)** with **whiteout, scratch-out, and checkbox OCR detection** on HCP meal sign-in sheets for automated fraud detection.
- Engineered advanced **anomaly detection system** for expense reports using **ensemble model approach**, improving accuracy from **90% to 97%** to ensure regulatory compliance and prevent fraudulent expense submissions.
- Developed **Compliance Co-Pilot RAG chatbot** using **Python and LangChain** to revolutionize natural language access to complex life sciences compliance policies.
- Orchestrated scalable ELT pipelines processing **millions of records** into **CMS data warehouse** on AWS RDS, powering compliance reporting via **text-to-SQL chatbot**, **accelerating query time by 90%**.

Associate Software Engineer

Jul. 2022 – Jan. 2024

Qordata, Inc.

Karachi, Pakistan

- Transformed platform security across **life sciences compliance applications** by integrating **Keycloak**, **eliminating 80% of login issues** and fortifying sensitive HCP data access.
- Engineered robust **Java Spring Boot APIs** deployed via **Docker on AWS EC2** for foundational **compliance monitoring** and analytics, securing and processing sensitive **HCP engagement data**.
- Delivered interactive **Angular/React dashboards** on **AWS** for visualizing **compliance metrics**, empowering transparency reporting teams with early visibility into **HCP spend patterns**.

PROJECTS

Full-Stack E-commerce Platform | *Spring Boot, Angular, PostgreSQL, Stripe, Docker*

- Executed secure payment processing, user authentication, and responsive design to deliver complete online shopping experience

3D Model Marketplace | *Next.js, TypeScript, MongoDB*

- Optimized 3D rendering performance and engineered dynamic UI components, successfully deployed at ranforte.vercel.app

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, JavaScript, TypeScript, SQL, Spring Boot, Django, Next.js, Angular, React
Cloud & DevOps: AWS, Azure, Linux, Docker, Git
Databases: PostgreSQL, MySQL, MongoDB, SQL Server, ChromaDB, Vector DB, SSIS
AI/ML: PyTorch, LangChain, Gen AI (LLMs, RAG), Computer Vision, Anomaly Detection, MLOps, Hugging Face
Other: Agile, Requirements Gathering, Workflow Automation, KeyCloak, Okta, Power BI, TDD

CERTIFICATIONS

Introduction to PyTorch – DataCamp
Intermediate Deep Learning with PyTorch – DataCamp