

Mohammad Qudah

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EDUCATION

York University

B.SC. Computer Science with Honours

Toronto, ON, Canada

Sep. 2020 – May 2025

EXPERIENCE

Sun Life Financial

Software Engineer Intern

Aug. 2023 – Dec. 2023

Toronto, ON, Canada

- Built a microservice pipeline, processing **10,000+** files daily using **Apache Kafka** for distributed event streaming, reducing latency by **15%** and boosting throughput via optimized **JSON** parsing and parallel processing.
- Developed **Kafka Streams** applications in **Java** to transform and route real-time events within the pipeline, increasing **JUnit** coverage by **10%** and enhancing reliability for internal tools used by over **5,000** employees.
- Collaborated in **Agile Sprints** to redesign **MongoDB** schemas and implement compound indexes for nested document structures, decreasing query latency by **32%** and improving storage and retrieval of **100,000+** messages

eWorx Technology

Software Developer

Jan. 2023 – Aug. 2023

Remote

- Drove a server-side refactor, migrating legacy **Django API** to **FastAPI**, implementing async request handling to manage concurrent requests efficiently, achieving a **40%** reduction in average response latency.
- Optimized **CRUD** operations using **MongoDB** query projection and targeted schema improvements for high-traffic collections, increasing data retrieval speed by **42%** and refining backend maintainability.
- Refactored **React** components into modular, reusable units, optimizing the scalability of the code base.
- Integrated component updates into the **CI/CD pipeline** using **Jenkins** for automation, **Docker** for consistent builds and **Git** for version control, improving reliability and reducing deployment errors.

AIMS

Software Developer Intern

May 2022 – Dec. 2022

Kuwait City, Kuwait

- Enhanced employee data **CRUD** functions by optimizing **Spring Boot** backend services and **MongoDB** document-based storage, reducing **API** response latency by **45%** as a result of efficient document retrieval.
- Resolved more than **100** bugs in a web-based Human Resource Management System, enhancing system performance and expanding **JUnit** test coverage by **18%**, lowering bug recurrence while improving overall performance.
- Implemented a **React-based** document preview feature with rotation and zooming capabilities, reducing HR document processing operations by **20%** and cutting paper consumption by over **15%** through digital adoption.

PROJECTS

GrantBridge | REACT, TYPESCRIPT, NODE.JS, EXPRESS.JS, PERPLEXITY API, AWS

- Built a full-stack AI-powered grant discovery platform using **React**, **TypeScript**, **Node.js** and **Express.js**.
- Integrated **Perplexity Sonar API** to simplify eligibility rules and generate application prompts.
- Released to production with **AWS Lambda**, enabling **50+** users to discover scholarships and funding opportunities through a serverless deployment, eliminating manual server handling and scaling automatically with user demand.

Collaborative Canvas | GO, GORILLA WEBSOCKET, REACT, TYPESCRIPT, DOCKER, GCP

- Engineered a concurrent **WebSocket** server in **Go** using **Gorilla WebSocket** to manage active sessions via mutex-guarded client maps and broadcast real-time canvas and chat updates through shared message channels.
- Developed an interactive whiteboard frontend with **React** and **TypeScript**, featuring live user count tracking.
- Containerized backend with **Docker** and deployed to **Google Cloud Run**; automated **CI/CD** with **GitHub Actions** and hosted user side on **Firebase** for serverless delivery.

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, Go, HTML, CSS

Frameworks/Libraries: React, Spring Boot, Node.js, Django, FastAPI

DevOps/Tools: Git, Apache Kafka, Docker, AWS, Postman, GCP, Jenkins

Databases: MongoDB, SQL