

Mohammed Arab

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Education

Algonquin College | Ottawa, Ontario

Diploma of Computer Programming | 05/2023

- Dean's honor list for all academic semesters - 3.97 / 4.0 GPA
- Relevant coursework: Advanced JAVA Programming | Web Programming (LAMP / MERN) | Mobile Application Development | Software Design and Testing

University of Ottawa | Ottawa, Ontario

Bachelors of Health Sciences | 04/2021

- Graduated summa cum laude - 9.31 / 10.0 GPA

Experience

Government of Canada - Health Canada | Ottawa, Ontario

IT Developer | 09/2023 - Present

- Developed and maintained the newly released [National Vaccine Catalog \(NVC\)](#) application using Go + Python + SQLite, providing the Canadian public with up-to-date vaccine information.
- Architected the cloud solution for the deploying of the NVC application using Azure web app for containers and storage account services.
- Developed an accessible web application administrator portal using React and WET and Microsoft Azure services for deployment, allowing administrators to save much time on previously manual work.
- Attended formal FHIR training and created FHIR servers on both Azure and AWS environments to establish a POC envisioning interoperable health care data standards across Canada.
- Manage and mentor multiple IT-01 students to guide them through their needs while working on different projects in different time zones.

Government of Canada - Canadian Heritage | Ottawa, Ontario

Web Application JAVA Developer | 05/2022 - 09/2023

- Developed and maintained JAVA based web applications open to the Canadian public using JSF + Spring Boot and MSSQL server for database layer.
- Implemented new functionality using multithreading to securely automate the disposal of user data as per information management requirements, saving company time by reducing manual work.
- Worked on improving accessibility by upholding WCAG2.1 AA standards using Web Experience Toolkit (WET) to enable more individuals to use our services.
- Created well tested and well documented applications through the use of JUnit testing framework and writing technical requirements/implementation reports, flow diagrams, and testing documentation.
- Helped maintain [Nomenclature.info](#) by implementing linked open data principles to provide the Nomenclature standard to Museums all over Canada.

Thaqalayn.net Hadith Library | Ottawa

Full Stack Developer | 05/2023 - Present

- Maintain [Thaqalayn.net](#) web application using Next.js for frontend development and Deno as backend JavaScript runtime environment with Typescript to provide services to the frontend. Services include: GraphQL + REST endpoints, Typesense search engine for optimized search results, and NGINX as reverse proxy for load balancing. PGAdmin is used as an RDBMS. Docker is used for deployment.
- Implemented query caching for GQL using Redis to improve web application performance and reduce costs associated with server resource usage.
- Set up synchronization service to automatically update Typesense indexes as application data changes in real-time, providing most up-to-date search results.
- Created backup strategy comprised of weekly automatic backups stored on AWS S3, allowing for database restoration in case of emergencies.
- Experience with Vercel for frontend deployment and AWS EC2 for backend service deployment with Docker. AWS S3 is also used for storage.

Lykka Village | Ottawa, Ontario

Capstone Project - Full Stack MERN developer | 01/2023 - 04/2023

- Helped develop a minimum viable product for Lykka Village to help them deploy their business product as soon as possible.
- Used React for implementing filter (search, date, category) functionality in the application.
- Used Node.Js and Express.Js to implement backend, equipped with login and authorization functionality.

Projects

[Note Harbor](#) - React, Node.Js, Express.Js, MongoDB

- Note Harbor is an application that allows for simpler question-based research by allowing users to create notes with specific tags and sources and allows users to filter based on these for easier review in the future.
- [Backend](#) is composed of Node.Js + Express server and MongoDB for DB (users also have option of offline use). This service is deployed on an AWS EC2 instance.
- [Frontend](#) composed of a React application developed using Vite and Mantine UI as component library. Deployed on [Netlify](#).
- Work in progress!

[ThaqalaynAPI](#) - React, Node.Js, Express.Js, MongoDB, Python, Golang

- Created a RESTful API which offered the information found on Thaqalayn.net in JSON format for other programmers.
- Used Node.Js + Express.Js to create the server, mongoDB to store the data and AWS Lambda to deploy it.
- The information was initially scraped off the website using Python. In V2 of the application this was replaced by a Go program.
- Created a simple [React front-end](#) (deployed on Firebase) to showcase one of the endpoints.
- Received 645,000 requests in February 2023.

[Memory Lane](#) - Golang

- Memory lane is an application that allows partners to create private rooms and post notes that only become available for viewing after some specified period of time, allowing couples to remember and cherish memories together.
- Created as a traditional web application with Golang. The HTML is rendered on the server side before being sent to the client. Other tools used include Go Templ for HTML templating, tailwind CSS for styling, and SQLite for DB.
- Deployed on a VPS using Caddy server.

Languages

English, French, Arabic, CCE French language profile

Skills

JAVA, Javascript, Typescript, Python, SQL, HTML, CSS, React, Node.js, Express.js, Spring / Spring Boot, C#, ASP.NET, JUnit, MySQL, MongoDB, Git/SVN, Maven, Jenkins, Microsoft Azure, LAMP stack, Typesense, NGINX, GraphQL, AWS, Golang