Abdul Rahman El Mahmoud

Guelph, ON

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Education

University of Guelph

Bachelor of Computing, Major in Software Engineering with a Minor in Business

- Achievements: Dean's Honour List (8x) Graduated with distinction
- Relevant Courses: Data Structures, Algorithms, Software System Development & Integration, Parallel Programming, Cloud Computing

Skills

Languages C/C++, Python, JavaScript/TypeScript, Java, SQL, HTML/CSS Developer Tools Linux, Github, AWS, Azure, Kubernetes, React, Node, Terraform, Docker, Firebase, MySQL, Flask Relevant Skills Data Structures, Object Oriented Programming, Communication, Problem-solving, Agile Practices

Professional Experience

Application Developer

Kenna

- · Full Stack developer with a focus on web applications and frontend development
- · Leveraging React, SQL, Node, and Next.js for Application Development.
- Utilizing JIRA for project management, Jenkins CI/CD for multi-environment application deployment, and AWS as a hosting platform.

Python Developer (Research Assistant)

University of Guelph

- Led the development of a Python tool that renders a graph representing colour deficiencies of users based on environment and display. This tool was used as part of a greater system that aims to solve colour deficiencies on digital displays
- Refined and Optimized the visualization tool using the Plotly library to increase rendering speed by 9% and fixed rendering glitches
- Conducted a thorough and investigative literature review on Dark Mode in Human Computer Interaction
- Presented comprehensive reports weekly to my supervisor in an agile work environment

Full-stack Developer (Research Assistant)

University of Guelph

- Developed a Python algorithm using spaCy to extract key information regarding data collection, retention, and sharing in IoT data agreements
- Streamlined and optimized the extraction algorithm for the web app, increasing run time speed by 26%
- Designed and implemented a robust MySQL database to store company information, data policies, extraction queries, and query answers
- Spearheaded the Development/Deployment of the Node.js frontend and Python backend using cPanel, allowing hundreds of users to better understand how their agricultural IoT devices collect, retain, and share their data

Web/App Developer

Muslim Society of Guelph

- Revamped the MSofG's WordPress website by updating the aesthetic, adding a blog section, event handling, payment gateways for donations, and account management, testing all features initially on a developer environment before pushing it to production
- Initiated the development of the native mobile application using Flutter to make the MSofG services accessible on mobile
- Created a PHP API to serve as the backend for mobile, allowing the MSofG to update both the web and mobile app through WordPress
- Deployed the WordPress web app using cPanel and released the Flutter mobile app on the Apple App Store and Google Play Store, resulting in a 61% increase in donations and a 33% increase in community engagement

Projects

Country Reporter

React, Python, Docker, Terraform, AWS

- A cloud native app that handles country data and follows the ETL process to generate comprehensive reports on a global and country scope
- Implemented CI/CD pipelines for application and infrastructure, using Kubernetes for scalability and Terraform for ease of maintenance

What2Do

Flutter, Python, Firebase, AWS Lambda, OpenAI

- A mobile application aimed to improve productivity by generating daily tasks based on your occupation and goals
- Utilized the OpenAI API to generate meaningful tasks and AWS Lambda to serve as the back-end of the application

Guelph, ON

May 2022 - Aug 2022

Guelph, ON May 2021 - Aug 2021

Guelph, ON

Dec 2020 - May 2021

June - Oct 2023 github.com/abdulm7/Country-Reporter

May 2023

github.com/abdulm7/What2Do

Mississauga, ON

Feb 2024 - Present

