IBRAHIM MOHAMED

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EDUCATION

Memorial University of Newfoundland

St. John's, NL

Bachelor of Science in Computer Science

Sep. 2020 - Apr. 2024

• GPA: 3.8

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, HTML, CSS, SQL, C++

Frameworks, Cloud and Databases: Flask, Django, AWS, React.js, Node.js, Vue.js, DynamoDB, REST, Docker,

FastAPI, NestJS, NextJS

Developer Tools: Git, Github, VSCode, PyCharm, Visual Studio, Gitlab, DataGrip

Others: Agile Scrum Development, Data Structures, Web Services

EXPERIENCE

Software Engineer

June 2023 – Present

Radical Imaging

Boston, MA

- Developed software solutions to tackle challenges in medical imaging projects, primarily focusing on web development, cloud, and AI.
- Implemented comprehensive automated testing strategies, leveraging frameworks such as Jest, Cypress, and Playwright, which increased code reliability and reduced debugging time by 30%.
- Engineered a flexible SaaS DICOM viewer using NestJS and NextJS. This cloud-based viewer effortlessly integrates with diverse workflows, maintaining its core functionality while providing adaptability.
- Established validation methods for existing clinical tools in the viewer, streamlining the FDA application process and ensuring compliance with regulatory standards.
- Addressed and rectified critical security vulnerabilities within the AWS infrastructure, leading to substantial improvements in security and system integrity.

Software Engineer

April 2022 – Present

Jewish General Hospital

Montreal, QC

- Deployed and configured ML models on AWS, using EC2 accelerated compute instances and Sagemaker.
- Prepared ML models for inference using FastAPI, Nginx, and AWS Load Balancer.
- Developed a REST API to communicate with AWS RDS and many other services.
- Built a user authentication system using AWS Cognito and FastAPI to verify user JWT tokens.
- Engineered several architectural diagrams and led planning of app development and infrastructure design.
- Programmed a web-based DICOM viewer with extreme performance by utilizing Vue3 and CornerstoneJS's robust accelerated image display and multi-threaded image decoding.
- Beta tester for Amazon HealthLake Imaging.

Certificates & Awards

AWS Certified Solutions Architect Professional

Jan 2023 – Present

- Provided expert guidance about architectural design that extends across multiple applications and projects within a complex organization.
- Demonstrated the ability to provide implementation guidance to organizations throughout the workload life cycle.
- Designed and implemented resilient, high performing, secure and cost optimized architectures on the AWS Cloud.

McGill - Clinical Innovation Competition

April 2023 – May 2023

- Winner of the First Marika Zelenka Roy Innovation Prize
- Developed and built frontend, backend, and cloud resources for CoreSlicer, a cloud-based AI platform.
- Automated the measurement of frailty and body composition from medical images (CT, MRI, ultrasound).
- Collaborated with a multidisciplinary team including medical professionals, developers, data scientists, machine learning engineers, and interface designers.
- Demonstrated expertise in developing and implementing innovative solutions for healthcare applications.
- Empowered clinicians to individualize care for older patients, reducing postoperative complications, adverse events, and emergency readmissions.