ABDULRAZAK MURTALA

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Software Development Engineer

Software Engineer with experience working in large cross-functional teams developing reliable services/products and solving problems involving probabilistic reasoning, heuristic search algorithms and complex optimization problems. Strong understanding of object-oriented design, test-driven development and continuous integration and deployment.

Key Strengths:

Agile Software Development | Robotics | Team Engagement | Customer Experience | Optimization | Research

Technical Skills:

Development Tools: Visual Studio Code | IntelliJ | Git | Docker | CircleCI | AWS | Protocol Buffer | Elasticsearch
Programming Tools: C | C++ | Java | Python | Dart | Assembly Language | SQL
Operating System: Windows OS | Mac OS | Linux | ROS | FreeRTOS

PROFESSIONAL EXPERIENCE

AMAZON DEVELOPMENT CENTRE CANADA ULC, Vancouver, BC   **2022-Present**

Software Development Engineer

Managed and operated multiple cloud services owned by the Amazon IN Direct Fulfilment Team using AWS. Improved the performance of backend APIs and services, and planned and owned the end-to-end delivery of new features.

- Improved latency of the backend APIs of a customer-facing service by over 70% by optimizing and parallelizing calls to dependent services.
- Introduced unit tests for a service which raised test coverage to over 95% and ensured reliability.
- Engaged in initiatives to improve the overall operational excellence of the team including improving the resilience of pipelines by introducing code-review verification steps.
- Collaborated with cross-functional teams to discuss project requirements and other customer-impacting issues.

AUGMENTA INC, Toronto, ON   **2021-2022**

Software Engineer

Collaborated with PMs and designers to develop new features for the Automated Electrical System Design Platform and made several improvements to the quality of generated solutions and performance of the platform.

- Optimized computationally intensive modules within the codebase, improving performance by more than 50%.
- Improved quality of generated designs by introducing techniques for routing around obstacles.
- Developed overbuild feature that allowed users to include extra allowances in generated designs for futureproofing.
- Integrated parts/cost database into the platform allowing for improved generations with accurate cost estimates.

NATIONAL RESEARCH COUNCIL OF CANADA   Winnipeg, MB   **2020**

Co-op Student

Investigated approaches to capture fine hand movements in VR as part of the NRC's Medical Devices Research team's effort to build training tools for medical professionals and implemented new features for existing applications.

- Implemented a tracking and positioning application using OpenCV and Mediapipe which estimated orientation and 3D location of the hand.
- Implemented the Enhanced Shock Burst communication protocol between radio chips which worked concurrently with BLE and allowed for real-time data transmission.
- Implemented a UI for a facial analysis application using Qt widget toolkit.

UNIVERSITY OF MANITOBA BME LABORATORY   Winnipeg, MB   **2019**

Research Assistant

Developed a mobile application that could check the quality of breathing sounds using signal processing techniques. Communicated with superiors to determine project scope, including constraints and requirements.

- Developed a mobile application using Android Studio that could perform signal-to-noise ratio analysis on breathing signals recorded by a specialized recording device.
- Performed multiple tests on the mobile application to determine algorithmic efficiency and troubleshoot problems in the application.

EDUCATION & PROFESSIONAL DEVELOPMENT

Bachelor of Science, Computer Engineering, University of Manitoba, Winnipeg

- Memberships: Engineers Geoscientists Manitoba, University of Manitoba Society of Automotive Engineers (UMSAE)
- Awards: UMSU Undergraduate Research Award, International Undergraduate Student Scholarship, Price Scholarship in Engineering, UMSU Scholarship