# **MOHUMED DAHIR**

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**EDUCATION** 

Carleton University Graduated April 2024

**Bachelor of Science in Computer Science** 

#### **SKILLS**

- Languages:(Advanced) -Java(5years), HTML/CSS(4years), Javascript(3years), Python(3years), (Intermediate) SQL(2years), C++(2years), MySQL(2years), (Beginner) C(1year) and PostgreSQL(1Year)
- Frameworks: ReactJS, NodeJS, ExpressJS, NextJS, Springboots, Django, and REST API
- Developer Tools: Git, Docker, AWS, UNIX, Agile, Jenkins, MongoDB, Mongoose, and GraphQL

#### **EXPERIENCE**

#### **Control Systems Engineer | Powerhouse controls**

May 2024 - August 2024

- Configured and integrated industrial communication networks using protocols such as Modbus, PROFIBUS, and Ethernet/IP to enable seamless communication between PLCs, HMIs, and drive systems.
- Reprogrammed control systems, leading to a 40% improvement in data transmission speeds and significantly boosting system reliability
- Designed and implemented coordinated Variable Frequency Drive (VFD) control systems using PLC and HMI programming, ensuring seamless industrial communication network integration
- Conducted rigorous testing, startup, and commissioning at customer sites while troubleshooting, installing, and repairing control systems
- Technologies Used: PLCs, HMI, GitHub, Git, SCADA Systems, Modbus, Ethernet, Excel, Agile, Scrum

## Software Engineering Tutor | Carleton University

September 2021 - April 2024

- Led workshops and collaborative projects, helping students complete assignments efficiently and enhancing their problem solving abilities using Java
- Maintained and optimized the automated grading server by conducting rigorous testing, ensuring student submissions passed all test cases without crashes, even for large datasets
- Provided personalized student support via Discord, offering debugging assistance, fixing bugs, and offering insights to enhance coding skills
- Managed the class Discord server to resolve assignment queries, sharing resources that promoted the effective use of online material
- Technologies Used: Java, Excel, Agile, Scrum, IntelliJ IDEA, Discord, and Draw.io

## Software Automation and Testing Intern | Ericsson

January 2023 - August 2023

- Executed QA performance tests across various Radio Access Technologies, reducing test execution time by 15% and improving test coverage by 20%, leading to better product reliability
- Developed JUnit-based automated test cases, boosting testing efficiency by 25% and software accuracy by 30%, ensuring quicker delivery of quality software products
- Developed and tested traffic cases for UE detachment/attachment, adhering to company policies and utilizing internal frameworks to ensure compliance and effectiveness
- Worked with cross-functional teams to optimize automated testing processes, enhancing overall testing efficiency and quality assurance
- Technologies Used: Python, Jenkins, JUnit, Git, and Jira

## Software Engineer Intern | Ericsson

May 2022 - December 2022

- Improved performance and UI of an internal project management tool using React, Redux, and Docker, reducing loading times by 20ms and increasing user satisfaction by 15%
- Designed interactive frontend features using REST APIs for project summaries, improving project tracking accuracy by 40 points and boosting stakeholder engagement by 35%
- Participated in agile development processes, effectively adapting to changing requirements while maintaining high-quality results
- Developed a virtualization tool using HTML, CSS, and JavaScript to track project milestones, ensuring real-time updates and an intuitive user interface
- Technologies Used: HTML, CSS, Javascript, React, Docker, MongoDB, Rest API, Git, ExpressJS, and NodeJS

## **PROJECT**

#### **Embedded Systems Developer**

Jan 2024 - April 2024

• Utilized dynamic SQL with embedded C to create and manage relational databases for customer purchase order applications. This included defining primary and foreign keys for multiple entities (customers, orders, line items, products) using Oracle VM and SQLCA

- Developed scripts to populate tables with customer and product data dynamically, using method 2 of dynamic SQL to automate data entry and perform user-driven queries to retrieve order details. Improved database interaction efficiency and data accuracy
- Designed and tested a dynamic system that prompts users for customer or product names, fetching corresponding orders and purchase details. Successfully integrated the solution for seamless real-time data retrieval with complex SQL queries in an embedded environment
- Technologies Used: C++, C, Bash, MySQL, PostgreSQL, Agile, Oracle VM, PL/SQL, NRDB, JDBC, NoSQL

## **AWARDS**

- Graduated with High Distinction
- Recipient of David A.Golden Entrance Scholarship, 2020 from Carleton University
- Recipient of World University Service of Canada(WUSC), Student Refugee Program recipient for high school final exam performance
- Year Dean's List, 2021,2022,2023 and 2024