Farzad Rahman

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Education

University of Waterloo
Computer Engineering, Bachelor of Applied Science *Graduation Date – Apr. 2027*

Technical Skills

Languages: C/C++, Javascript, Python, Java, VHDL, ARM Assembly .NET, Swift, MatLab
Frameworks: Cypress.io, Playwright, COMSOL, STM32, FPGAs, xUnit, Kubernetes, Jenkins, Selenium, Postman, React
Skills: Multi-threaded programming, Data-Structures/Algorithms, Object Oriented Programming, Game Development, Script Programming, QA Automation, Git

Experience

Clearpath Robotics May. 2024 - Aug. 2024
Software Test Engineer Intern

- Enhanced system performance and reliability **for OTTO-MOTORS Robot Fleet-Manager and OTTO-APP sim-robot software**
- Improved test reliability by reducing flakiness in cypress automation code, preventing false failures by **66%, ensuring accurate identification** of product issues
- Created complex canvas testing system for Fleet-Manager by **designing and programming a system using mathematical transformations** to accurately map robot pathfinding routes between the canvas and the automation tool

BlackBerry Sep. 2023 - Dec. 2023
Software Development Intern

- Engineered robust backend **API endpoints** and enhanced **frontend UI features** for the Multi-Tenant-Console cybersecurity platform, improving system usability and performance for enterprise clients
- Centralized and streamlined **feature flag management** across multiple repositories with LaunchDarkly, reducing deployment errors and improving feature rollout efficiency
- Refactored and migrated key UI components from legacy MTC to OneConsole, modernizing the frontend interface and enhancing user experience across platforms

BlackBerry Sep. 2022 - Apr. 2023
Software Development Engineer in Test

- Validated the Cylance Multi-Tenant Console platform by identifying and resolving critical bugs through **manual and automated testing**, ensuring high-quality releases and minimizing production defects
- Expanded test coverage by **30%** through developing and debugging test cases using **xUnit for backend services and Cypress.IO for frontend component**s, extending tests to validate integrations between the **Multi-Tenant Console (MTC) and Unified Endpoint System (UES)**
- Designed and implemented a Jenkins-based automation framework in Groovy with **customizable PowerShell commands**, decreasing release testing time by **40%** and enabling dynamic test runs across environment configurations (region, stage, test suite choice)

Mollymawk Software Jan. 2022 - Apr. 2022
Fullstack Developer

- Developed full pages/features of Glider-club management system, Take-Up Slack, and engineered **serverless stack** driven platform
- Created API calls to function with front-end and database calls communicating with **AWS services such as Lambda, S3, DynamoDB**
- Engineered platforms from ground up such as **Audit Log system, User Account and Authentication**, to function effectively for accessibility and user ease

Projects

Multi-threaded Image Concatenation | *C, Multithreading, CURL, Data Structures* Oct. 2024

- Built a multithreaded program to retrieve and concatenate 50 image segments from a server using CURL, ensuring efficient concurrency and resource utilization.
- Implemented dynamic buffer management and CRC validation to ensure data integrity and adherence to PNG file format standards.
- Reconstructed the final PNG by combining updated IDAT chunks, achieving 100% accuracy and compatibility with standard image viewers.