WASIF BUTT

Computer Engineering Student, B.A.Sc (2018-2022)

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WORK EXPERIENCE

Full-Stack Web Developer

The Entrepreneurship Hatchery (UofT)

September 2020 – Present Toronto, Ontario

- The Hatchery is a startup hub at the UofT that provides new startups the resources to take their ideas to market.
- Currently working on implementing a new social platform that helps connects startups with bigger companies looking to take on projects. Using a Vue.js, AJAX, PHP, MySQL, Flask and AWS tech stack.

Software Engineer Intern

Cyberworks Robotics

June 2020 – August 2020 Markham, Ontario

- Cyberworks Robotics is a startup that develops AI robots for various industries to automate their processes.
- Created a new web-based fleet management system as part of product package. I was the sole web developer for the project and implemented a full-stack system for clients to view and manage their purchased robot fleet. System connected to robots using web-sockets and could then receive and send commands/messages.
- Worked as ROS robotics engineer, implemented a custom auto-tester package to be used in AWS. The package allowed autonomous robot simulation testing and recorded any errors with the ability to replay failed simulations later. This allowed testing to become a continuous operation.
- Worked in a fast paced environment with short deadlines and minimal supervision. Was able to make quick and adaptive executive decisions for creative problem solving.

PROJECT EXPERIENCE

ARM ASM Text Editor

Mar 2020

- Low-level C program integrated onto ARM FPGA environment that allows for visualization of text and edits onto a VGA display. Program utilizes character and pixel buffers, PS/2 driver input, and stack memory for copy/pasting.

GIS Mapping Software

Jan 2020 – Mar 2020

- Worked collaboratively with two others to develop a mapping software built using C++, with GTK libraries to design the GUI.
- Able to visualize graphs. Developed smart path finding using A* and Dijkstra graphing algorithms. Implemented multi-threading for efficiency. Also implemented a REST API to show live traffic on highways.

FPGA Super Mario Bros.

Dec 2019

- A hardware-based game of Super Mario Bros. written in Verilog implemented on DE1-SOC FPGA. Project utilizes a VGA adapter, PS/2 driver, and audio driver to move Mario through three different levels with full range of motions.
- Conducted finite state machine design and debugged using timing analysis techniques.

EDUCATION

B.A.Sc, Computer Engineering

University of Toronto

July 2018– Apr 2022

- Minor in Engineering Business and certificate in AI.
- Relevant courses: Software Communcation and Design, Logic Design, Algorithms and Data Structures, Control Systems, Relational Databases.

TECHNICAL SKILLS

Front End

HTML, CSS, JavaScript, jQuery, AJAX, Vue.js, React, React Native, Redux, REST API

Back End

PHP, MySQL, Postgres, C/C++, Java, Python (Flask, Django), Node.js, AWS, Apache, Websockets, Concurrent Programming, Functional Programming

Hardware

Verilog, ARM ASM, FPGA Implementation, ROS, Python Scripting, Gazebo Simulations, MATLab, XML, Timing Analysis, IoT Middleware

Other

Linux, Git, Docker, Bash Scripting, Creating and using custom libraries

SOFT STRENGTHS

- Experience implementing open-source software with strong ability to understand and write extensive software documentation.
- An adaptable work style with the ability to complete a wide range of tasks independently or within a large team.
- Strong team leadership ability with a charisma that encourages productivity and contribution.
- Methodical work style that focuses on breaking tasks up to manageable portions with continuous improvements throughout project life cycle.

PERSONAL INTERESTS

- Running
- Basketball
- Travelling
- Motorcycling