

Omar Alashqar

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SKILLS

Languages C/C++, JavaScript, Java, Python, PHP, Bash, VHDL
Stack and tools NodeJS, ReactJS, MongoDB, Firebase, GraphQL, Git, Linux, Quartus

EXPERIENCE

Software Developer | MAJiK Systems Kitchener Sep 2018 - present

Web Developer | Rich Media Toronto Jan - April 2018

- Built responsive web apps for major financial institutions using ReactJs and Angular5
- Implemented reusable libraries in JavaScript for interactive data visualization similar to D3.js
- Pioneered research and development for a Google Home project involving natural language processing
- Improved workplace productivity and client interaction by introducing a project tracking system for projects

Lead Programmer | FIRST Robotics Team 6378 Mississauga Oct 2016 - Jan 2017

- Programmed robot using the FRC WPI Robotics Library in Java for automated functionality and driver control
- Implemented controllers to manipulate PWM based subsystems utilizing PID with relays and encoders
- Developed autonomous robot routines for driverless functionality with error correction algorithms

PROJECTS

Lazorboi | Laser display embedded system written in C

- Developed a custom CLI for controlling an embedded system that visualizes input through dynamic laser displays
- Implemented interaction between the Onion Omega2 board and motors with GPIO via a motor controller chip
- Cross-compiled programs on a UNIX system with mips architecture and loaded them onto the board over SSH

Spotirave | Audio visualization web app for your Spotify playlists

- Developed back-end server with ExpressJS to host a responsive ReactJS UI and handle API calls
- Implemented OAuth login system to authenticate with the Spotify Web API to access user playlists
- Processed audio data with Fast Fourier Transforms to achieve music visualizations

Stiki | Web app for storing your notes in a real-time database

No Chill | Crossy road game clone using Java and endless random generation

ACTIVITIES

Co-Founder & Tutor | High school Code Club Mississauga Oct 2016 - Jun 2017

- Co-Founded and tutored my high school's first Computer Science club to boost students' interest in technology
- Introduced students to coding in Python and trained experienced programmers in Java with coding challenges
- Participated in the 2017 ECCO programming contest as a team and the 2017 CCC University of Waterloo contest

Software & Electrical sub-teams member | UW Robotics Team Waterloo Sep 2018 - present

- Contributed in developing robots with autonomous functionality for the annual University Rover Challenge

EDUCATION

Candidate for BASc in Honours Computer Engineering | University of Waterloo 2017 - 2022

- Developed state machines, discrete time physics simulations, and other C/C++ programs
- Designed and implemented gate level and higher level digital circuits for FPGA hardware with VHDL and Quartus