Omar Alashqar

✉ oaaalash@edu.uwaterloo.ca
🏠 www.omaralashqar.me
 omaralashqar
in omaralashqar

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 artitechure and loaded them onto the board over SSH

Spotirave | Audio visualization web app for your Spotify playlists
· Developed backend 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 acces user playlists
· Processed audio data with Fast Fourier Transforms to achieve music visualizations

Stiki | Web app for storing your notes in a realtime 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 subteams 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