Brian Tran

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SKILLS

- Highly proficient in **front-end** web development with **HTML**, **CSS**, **JavaScript**, **jQuery**, and **ASP.NET**
- Strong **C#**, **C++**, and **object-oriented programming** skills
- Experience with microprocessor development in **assembly** and **VHDL**
- Competent with **Bootstrap**, **SQL**, **Android**, and **MATLAB**
- Understanding of **Git** workflow in an agile environment

EXPERIENCE

Web Developer
May – August 2016

Intellisoft Development Inc. for George Brown College | Toronto, ON

- Rebuilt the course search tool using HTML, CSS, jQuery, and ASP.NET with a CMS to return results over **200x faster**
- Implemented custom user analytics on the search tool using an SQL server, tracking over **1 million** visits per year
- Collected page visit data to display the most popular related courses, resulting in increased enrollment volume
- Collaborated effectively with teammates and clients to implement a site-wide cart for adding and comparing courses
- Performed cross-browser and ensured AODA compliancy to prepare projects for deployment

Technology Lead
September 2016 - present

Canadian Undergraduate Technology Conference Foundation | Toronto, ON

- Working on a team to organize all tech aspects of CUTC 2017, Canada's largest student-run technology conference
- Designing and building the conference's official website with SEO optimization and an attendee portal

PROJECTS

Assembly Projects | ARM assembly

- Programmed a Keil microcontroller to communicate in Morse code by blinking LEDs
- Measured and displayed a user's reaction time by flashing an LED and counting the delay until a button press

Traffic Light Controller | VHDL

- Modelled a traffic light controller on an Altera FPGA using VHDL with a finite state machine running on a clock
- Improved theoretical traffic flow by efficiently changing lights based on car detection

Indoor Navigation App | Android

- Filtered and passed sensor data through a finite state machine to accurately detect a user's step and heading
- Formulated an algorithm to draw the shortest path to the destination and dynamically updated the user's position

Simulated Server Analytics | C++

- Calculated server traffic statistics such as expected delays based on file size, priority, and random bias
- Implemented priority queues using C++ linked lists to serve simulated requests arriving at various times

Chocolate Sweeper | C#

- Created a Minesweeper-like game using C# and core concepts of object-oriented programming
- Designed a recursive function to reveal adjacent cells after clicking on a safe cell

EDUCATION

University of Waterloo | B.A.Sc. Computer Engineering
September 2015 – April 2020

- Placed on the **Dean's Honours List** for the Winter 2016 term
- Coursework: Data Structures and Algorithms, Digital Computers, Digital Circuits, Design with Embedded Systems