





Bachelor of Mathematics (Computer Science) — University of Waterloo, Class of 2020

# Experience\_\_\_\_

### **Aecon Research Team** — *Software Developer*

*May 2018 — Aug 2018* 

- Led the development of tools and features to allow the integration of digital verification of construction components in fabrication plants
- Implemented and documented a new verification process technique for the alignment of construction pipes which will be included in a civil engineering journal article
- Increased application responsiveness by offloading CPU heavy operations to separate threads
- Utilized the VTK graphics system to manipulate 3D laser scans for comparison purposes
- Improved user experience by redesigning the data analysis to be more intuitive and interactive

#### **Rocscience** — *Software Developer*

Sept 2017 — Dec 2017

- Designed comprehensive data display tools using Microsoft's Foundation Class Library
- Implemented 2D and 3D models of structure foundations and materials using the OpenGL API
- Built a tool to generate customizable reports on geological models using Microsoft's Graphics Display Interface and HTML
- Wrote project briefs and presented completed products to company executives

### **Tangam Systems** — *Software Developer*

Jan 2017 — Apr 2017

- Collected client browser information and metrics to evaluate the continued support for legacy browsers using C# and VBA
- Advanced current roadmap initiatives such as mobile notifications and team performance statistics by developing and maintaining ASP.NET MVC web applications
- Created and designed the engineering team's landing site and wiki to be functional and appealing for other departments

## Projects \_\_\_\_\_

### **Compiler** — Course Project

*Mar 2018* 

• Wrote a compiler in C++ to compile a subset of C into MIPS assembly code

### **Recipe-Builder** — Hack The Valley

Jan 2017

- Created an Alexa app to recommend recipes based on ingredients provided by the user, utilizing Amazon's Alexa Skills Kit
- Added the application's voice commands and response phrases to Alexa in JavaScript

### Skills\_

Languages: C++, C, C#, Python, Java, HTML/CSS, Bash, Racket

Technologies: Visual Studio, MFC, OpenGL, VTK, JIRA, Git, SVN, Linux