

# Andrew Gamble

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## EDUCATION

### UNIVERSITY OF WATERLOO

#### BCS IN COMPUTER SCIENCE

May 2022 | Waterloo, ON

Digital Hardware Option

Cum. Avg: 85%

### SIMON FRASER UNIVERSITY

#### CONCURRENT STUDIES

Sept 2016 - May 2017 | Surrey, BC

Computer Science and Chemistry

GPA: 4.13

### FRASER HEIGHTS SECONDARY

Grad. May 2017 | Surrey, BC

## LINKS

Facebook:// [andrewgamblee](#)

Github:// [gamblea](#)

LinkedIn:// [gamblea](#)

YouTube:// [andrewgamble](#)

Instagram:// [andrew\\_gamble](#)

Wordpress:// [andrewgamblee](#)

## COURSEWORK

### UNDERGRADUATE

Algorithms and Data Structures

Operating Systems

Digital Hardware and Logic

Object Oriented Programming

Computer Vision

Functional Programming

Unix Tools and Scripting

## SKILLS

### PROGRAMMING

25000+ lines of:

C++ • Javascript

10000+ lines:

C • Java • Shell

HTML • CSS

1000+ lines:

Raket • Matlab • C# • Tcl

Python • VHDL •  $\LaTeX$

Familiar:

Perl • Verilog • MySQL

### HOBBIES

Indoor and Beach Volleyball

Cooking for friends and family

Skiing and Snowboarding

Still Photography

Hiking and playing pool

## EXPERIENCE

### INTEL | SOFTWARE ENGINEERING INTERN

May 2019 - Sept 2019 | Toronto, ON

- Member of Quartus Prime Static Timing Analysis Team
- Developed within a modern C++ code base using boost libraries and Intel TBB
- Test Driven Development with Perl, Tcl, and Verilog hardware designs
- Coded enhancements for Tcl and SDC commands for interactive timing analysis
- Redesigned and implemented the analysis of Strongly Connected Components within a timing graph and obtained a speed increase of 10x
- Debugged core C++ timing analysis algorithms using GDB, VTune and custom tools

### RICH MEDIA | WEB + MOBILE DEVELOPER

Sept 2018 - Dec 2018 | Toronto, ON

- Built web applications for Samsung Canada, TD Insurance and Sun life Financial
- Led development of a cross platform voice application (Alexa and Google Home)
- Created device front end intent interfaces using DialogFlow and the Alexa Skills Kit. Implemented the backend using Node.js and the Jovo-Framework
- Managed AWS Lambada, API Gateway and S3 resources to host applications
- Used HTML, SCSS, JS, Node.js, Bootstrap, Webpack and JQuery

## RESEARCH

### ORI | UNDERGRADUATE RESEARCH ASSISTANT

Sept 2019 - Present | Waterloo, ON

Working on the development of Ori, a distributed file system built for offline operation and empowers the user with control over synchronization operations and conflict resolution

## PROJECTS

### PERSONAL WEBSITE | 2019

Created a personal website [andrewgamble.ca](#) with Node.js, React, Webpack and Express. Hosted on AWS using Lambda, S3 and DynamoDB

### WLP4 COMPILER | 2019

Built a WLP4 compiler, a C like language, to create MIPS assembly using C++. Fully implemented the lexical analyzer, parser, and code generator

### CHAMBER CRAWLER | 2018

Implemented a text-based rouge-like RPG for Linux and Windows using C++

### REVERSE GEOTAGGER | 2017

Created a Universal Windows Platform application with C# to add GPS metadata to images from an external GPS file. Along with adding visually descriptive keywords utilizing Azure Cognitive Services API

## AWARDS

2017	1 <sup>st</sup> /300	Volleyball Canada National Championships U17
2017	1 <sup>st</sup> /50	Volleyball BC Provincial Championships U18
2017	SFU	Gordon M. Shrum Major Entrance Scholarship