Quinn Smith

Software Engineer

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Education

University of Toronto *Toronto, Canada*

Bachelor of Applied Science in Computer Engineering, cGPA: 3.7/4.0 *September 2016 - May 2021*

- **Coursework:** Algorithms & Data Structures, Operating Systems, Distributed Systems, Computer Architecture, FPGA programming

Experience

Amazon Web Services *Vancouver, Canada*

Software Engineering Intern *June 2020 - Aug. 2020*

- Worked on the relational database service (RDS) oracle team.

Intel *Toronto, Canada*

Software Engineering Intern *May 2019 - May 2020*

- Developed customer features on top of a multi-million line C++ codebase.
- Enhanced data analytics infrastructure improving accessibility to metrics.
- Improved code test coverage, reliability and QoR through unit testing.

FPGA Cloud Computing Lab *Toronto, Canada*

Summer Research Student *May 2018 - Aug. 2018*

- Created a tool chain that simulated FPGAs over a network using Python.
- Worked with advanced hardware design flows such as high level synthesis and partial reconfiguration.

Projects

Homerow

- A compiler written in C++ for an esoteric language.
- Completed work on lexer. Currently working on code generation.

Distributed Key Value Store

- Constructed a distributed file system similar to Hadoop.
- Added a publisher subscribe message system to simplify communication between server nodes and their clients.
- Implemented LRU, LFU and FIFO caching to reduce server latency.
- Developed scripts and unit tests to allow for benchmarking of system performance.

Homesafe (U of T Hacks)

- Collaboratively developed a budget home security system using a mixture of Javascript, Python and MongoDB.
- Placed in top 10 best hacks.

Piplined Line Drawer Embedded System

- Implemented an embedded system that could draw shapes onto a screen using VGA.
- The CPU was described using Verilog and the firmware was written in C.

GIS Mapping Software

- Collaboratively engineered a GIS Mapping software in C++.
- Solved graph based data structure problems using STL.

Skills

Languages C++, Java, Python, C, Verilog, Golang, Tcl, Perl, Javascript

Technologies UNIX, Git, Perforce, Quartus Prime, LaTeX