

Simon Benjamin Orion Parent

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sboparen.github.io

SUMMARY OF QUALIFICATIONS

- Three years of experience leading software projects using various languages and platforms
- Adaptive to new problem domains; eager to learn new tools and methods
- Strong mathematical background and attention to detail

HIGHLIGHTED TECHNICAL SKILLS

- Languages: Python, Shell Scripting, C, Assembly (ARM, x86), C++, Racket, Ruby, Java
- Essential Everyday Tools: Linux, GNU Userland, Git, Vim, SSH, L^AT_EX, DWM, ST

PROJECT LEADERSHIP EXPERIENCE

Route Optimization Team Lead, Transit Labs, 2014/06 – 2016/05

I took ownership of the route optimization research prototype, and turned it into a complete software package, which continues to serve as the foundation of the RideCo product. This included the creation of a test suite, design of APIs to interface with other components, and packaging for cloud deployment. I was also responsible for the oversight and mentoring of the optimization team, contributions to the overall system architecture, and leadership in planning activities relating to optimization features.

Course Support for Real-Time Programming, University of Waterloo, 2010/09 – 2012/08

In 2009, the OS kernel assignments for the infamous “trains” course that I took as an undergraduate moved from x86 to an ARM architecture. Beyond my TA duties, I took charge of writing the new material required to update the neglected course resources, which included replacing legacy code.

Video Codec Programmer Intern, Magnum Semiconductor, 2008/05–08, 2009/01–04

Using the official specification and little else, I was the sole developer of a software video encoder for the VC-1 codec. Its purpose was to provide a bit-exact reference output for the encoder being developed by the hardware team. Working together, we discovered and resolved a critical defect in their encoder.

3D Graphics Programmer Intern, SideFX, 2007/01–04, 2007/09–12

I was given free reign to tackle the unreliability plaguing the tool for performing boolean operations on arbitrary surface geometry. After a careful analysis of the existing algorithms, I devised and implemented extensive revisions which greatly improved numerical stability and the handling of boundary cases.

EDUCATION

Master of Mathematics in Computer Science, University of Waterloo, 2014

How Programmers Comment When They Think Nobody's Watching

sboparen.github.io/thesis

Bachelor of Mathematics, University of Waterloo, 2010

Double Honours Co-op: Computer Science (97.63 average) and Pure Mathematics (97.20 average)

OTHER ACTIVITIES

- Certification Level N2 (92nd percentile), Japanese-Language Proficiency Test (日本語能力試験), 2017
- System Administrator and Stepchart Artist, UW Dance Dance Revolution Club, 2012 – Present
- Eighth Place (Individual Open Division), Internet Problem Solving Contest, 2016, 2017
- Musical Comedy Co-Playwright, *FASS for President*, FASS Theatre Company, 2013
- Problem Setter and Judge, International Olympiad in Informatics, 2010
- World Finalist and Bronze Medallist, ACM International Collegiate Programming Contest, 2007, 2008