TYLER HORTH

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EDUCATION

UNIVERSITY OF WATERLOO
3B Bachelor of Computer Science

SKILLS

LANGUAGES & FRAMEWORKS
Rust | Swift | Ruby | Rails | Python | C | C++ | C# | Java | JavaScript

EXPERIENCE

SHOPIFY
iOS Developer — Summer 2017

- Improved app performance of high traffic areas through meticulous performance profiling.
- Rewrote large sections of the app as part of major design overhaul.

UI Architecture & Acceleration Developer — Fall 2016

- Rewrote the Sprockets (Rails' asset pipeline) source map implementation, reducing compile time by 80% and fixing numerous bugs.
- Assessed benefits and feasibility of replacing Sprockets with Webpack as Shopify's core asset pipeline.
- Created prototype Webpack-Rails branch, benchmarked against Sprockets, and wrote a report detailing the results as well as a plan of action.
- Improved CoffeeScript→ES6 conversion tool to prompt users on unused statements.

Front-End Web Developer — Winter 2016

- Refactored common UI elements into components and influenced the design of the shared component library.
- Wrote a tutorial for building Rails UI components, documented current best practices, and built high quality examples.

OCTANE BIOTECH
C# Windows Developer — Summer 2015

- Designed and implemented a modular, serializable, graphic form builder using C# and WPF.

JIC DESIGNS
Web Developer — Summer 2013

- Developed the front-end for an Electronic Health Record using the Sencha Ext JS Framework.

PROJECTS

STRING CLEANING — July 2017
Command line tool written in rust which removes unused localization strings from iOS projects

- Used parallel iterators and an Aho–Corasick automaton to search a codebase with thousands of files and hundreds of localization strings in under 200ms.

PEG SOLITAIRE SOLVER — December 2015
Functional backtracking algorithm which solves Peg Solitaire puzzles

- Developed as a part of the final project for CS 135; my solution had one of the fastest running times among my peers at 109ms.

TOTALLY NOT MARIO — May 2014
Two-dimensional platforming game resembling Super Mario, written in Python

- Led a team of four, designed the overall program architecture, and developed several core engine components, namely, collision detection, animation states, and the player movement system.

ARCHER ELITE — April 2012
Java plugin for the videogame Minecraft

- Developed for a game server I administrated; it improved the utility of the archery skill by increasing damage at range, and by changing damage values based on the armor types worn.