

Josh DeGrazia

STUDENT · SOFTWARE ENGINEER

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Education

University of Waterloo

Waterloo, Ontario, Canada

B.C.S. (BACHELORS OF COMPUTER SCIENCE)

Sept. 2013 - Present

- with Business Option
- with a Minor in Combinatorics & Optimization

Experience

Software Developer, RPM Technologies

Toronto, Ontario, Canada

MAY 2014 - AUGUST 2014; MAY 2015 - AUGUST 2015; JAN. 2016 - APRIL 2016

Java, VB6, C#, ASP.NET, Perl, Python

- Created a compiler using Perl and Java to translate a 180,000 line Visual Basic 6 program into a C# ASP.NET program, vastly improving the performance and reliability of the program by re-writing core functionality with the new tools available
- Wrote a large Python project which generated and processed large, encoded test government documents related to financial records which the QA team was previously required to write by hand

Full Stack Engineer, Chalk.com

Kitchener, Ontario, Canada

SEPTEMBER 2016 - DECEMBER 2016

CoffeeScript, Ruby on Rails, React, Sass

- Created a feedback module allowing administrators to leave feedback for teachers on each of their lesson plans, allowing teachers and school-level administrators to view aggregated feedback on a centralized page
- Created PDF export options for teachers allowing them to print out progress on state-level teaching standards and their weekly attendance, as well as front-end interfaces for accessing each report
- Collaborated on the design and implementation of a large client infrastructure change allowing users to be grouped by school, in addition to previously only being grouped by their institution
- Implemented tools for Chalk.com employees to manage users and add many users to the system with ease
- Worked heavily with the product and front-end leads on creating new coding standards and design patterns for React code in order to increase productivity, make feature implementation easier, and follow more closely with industry best practices

Relevant Projects

Personal Website

NODE.JS, REACT, SASS, WEBPACK

- After spending time at Chalk.com learning React, I re-wrote my website using it in order to make it easier to update and maintain.

JSketch

JAVA, ANDROID, SWING

- A vector drawing program built off of Java for CS 349 (User Interfaces)
- Used the Swing library to render objects to the window, where shapes could be manipulated using key and mouse presses
- Later updated the interface using Android Studio to allow it to run on Android phones

OS/161

C, BASH

- Built a basic command-line operating system for CS 350 (Operating Systems)
- Created synchronization primitives, specifically locks and condition variables, to solve concurrency problems in the system
- Implemented basic system calls for managing thread state
- Implemented virtual memory management using page tables

WLP4 Compiler

C++, BASH

- Over the term, created a fully functioning compiler for a subset of the C language called WLP4
- Wrote an assembler translating a set of MIPS commands to binary instructions
- Created a WLP4 parser and used it to produce MIPS commands, which were then translated into binary using the assembler we had previously built