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About Me

I am a software engineer and interaction designer with a drive to learn about all I can. I love learning from others through teamwork, and hope to teach those around me as well. Team productivity and strong relationships with coworkers are both important to me.

Education

Simon Fraser University

Undergraduate Burnaby, BC CAN
Double Degree
CGPA = 3.32

Software Systems   2009 Sept - 2018 Dec   BSc
Involved both the practice and theory of Computer Science, with a focus on practical Software Development.

Interactive Arts   BSc
And Technology   2009 Sept - 2018 Dec
Focused on gathering and acting upon user requirements. Involved graphic design, UI, animation, sound design, material design, film, UX, psychology, sociology, and more.

Undergrad Researcher

Cognitive Science
Lab Volunteer   2016 Sept - 2018 Dec
Assisted in experiments about long-term learning & task mastery. Quantifed the relation between expertise and time taken to assess and act on a situation.

USRA Grant ($5,500 CAD)   2017 May - Aug
Built the mathematical ground work for and wrote a prototype of a tool which dynamically creates keyboard layouts optimized to reduce typos in gesture typing; based on user vocabulary. Paper is in the reviewing process.

Skills

Apps	OSes	Languages	
Bash	Arch Linux	Java	TypeScript
Git	Ubuntu	Python	Golang
Make	Windows	Kotlin	C
Inkscape	Android	Haskell	SQL

Work and Internship

Simon Fraser University   Surrey, BC CAN
Teaching Assistant   2018 Jan - Mar
- Was the only TA for 90 students in a second year course about OOP using Java and Spring.
- Wrote my own marking automation, improving marking speed ~5x, saving ~100 hours of marking time. Used the saved time for code reviews.

Doctors of BC   Vancouver, BC CAN
Junior Support Specialist   2013 May - Sept
- Managed atypical and sporadic problems caused by temporary displacement of 30 employees.
- Designed step-by-step guides for coworkers, cutting down the number of trivial support tickets ~25%.

Whittington IT   Brisbane, QLD AUS
Consultant   2012 Feb - Sept
- Managed the needs of over 40 doctors' offices, each with different EMR setups and server configurations.
- Managed all business affairs and customer relations for 4 weeks while employer was on sick leave.

Personal & School Projects

Compiler & Optimizer   18,000 lines of Java
- First class functions, arrays, rationals, strings, chars, ints, floats, and bools. With type casting hierarchy.
- Peephole, basic block reorganization & pruning, and static string deduplication optimizations.
- Developed my own multi-processed feature testing harness. Saved more time than I could estimate.

Portfolio Website   8,000 lines of Vue.js
- Written & designed from scratch to teach myself single page web app development. www.lief.info

Project Euler   3,000 lines of Haskell
- Solved and optimized the first 32 questions... so far.
- Covered many computer science and math ideas like prime sieves, pathing, and dynamic programming.

Sudoku Solver   1,000 lines of Kotlin
- Uses threadpools, deduction, and DFS to solve any standard sudoku... or prove it unsolvable.