Reuben Crimp

Education

PGDipSci	Computer Science, awarded with Distinction	2016
BSc	Major: Computer Science, Minor: Mathematics	2013 — 2015

Achievements

Scholarship for Academic Achievement in Science (University of Otago) 2014
ACM ICPC Programming Contest regional finals (UNSW, Sydney) 2014

Technical Skills

Proficient	C, C#, Java, Swift, Python, JavaScript
Familiar	C++, Haskell, SQL, PHP, GLSL, LaTeX
Tools	vim, git, docker, Xcode, Visual Studio, Unity
Libraries	opencv, opengl, nltk, three.js, Eigen, SDL

Research Experience

Research Assistant — Anatomy Department, University of Otago 2017
Developed software for annotating anatomical specimens, to be used for teaching.
Supervised by Dr. Yusuf Cakmak.

Research Project — CompSci Department, University of Otago 2015
Developed virtual-reality software for chronic stroke rehabilitation.
Supervised by Dr. Steven Mills and Dr. Holger Regenbrecht.

Summer Research Scholarship — CompSci Dept, University of Otago 2015
Designed and developed software for a lenticular auto-stereoscopic 3D display.
Supervised by Dr. Geoff Wyvill.

Research Assistant — CompSci Department, University of Otago 2014
Determining the time complexity of network scheduling algorithms.
Supervised by Dr. Haibo Zhang.

Teaching Experience

Tutor — CompSci Dept, University of Otago 2017 —
Teaching undergraduate tutorials (lecture style), for 20-30 students.

Tutor — Disability Information & Support, University of Otago 2015 —
One on one teaching on subject specific material. Computer science, maths, stats.

Demonstrator — CompSci Dept, University of Otago 2014 —
Supervising CS undergrad computer labs, and assisting the students with their work.

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Industry Employment

Intern iOS Developer 2015 — 2016
MixBit - Dunedin Office
Worked in a small team developing iOS applications in swift.

Projects & Experience

Developed virtual-reality software for chronic stroke rehabilitation.
Using C# and C++ with Unity and OpenCV. Involved heavy use of computer vision techniques. Supervised by Dr. Steven Mills and Dr. Holger Regenbrecht.

Designed and developed software for a lenticular auto-stereoscopic 3D display. Determined the internal optical properties of the display, then created several tools in C++, which generate and format 3D content. Supervised by Dr. Geoff Wyvill.

Helped develop a command line shell for linux/OSX/Windows in C.
A group project for university, where I was the main programmer, responsible for dealing with IO, pipes and processes on all three platforms.

Other personal projects include CHIP-8 emulator, path tracer, raycaster, triangle rasterizer, and several games made with Unity/C# and opengl/C.

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