

# REUBEN CRIMP

## EDUCATION

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

## ACHIEVEMENTS

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Awarded University of Otago Scholarship in Science for academic achievement, 2014  
Competed in the ACM ICPC Programming Contest regional finals in Sydney, 2014

## TECHNICAL SKILLS

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<b>Proficient</b>	C, C#, Java, Swift, Python, JavaScript
<b>Familiar</b>	C++, SQL, PHP, Haskell, $\text{\LaTeX}$
<b>Tools</b>	vim, git, Xcode, Visual Studio, Unity

## RESEARCH EXPERIENCE

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

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

## TEACHING EXPERIENCE

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

**Tutor** — Disability Information & Support, University of Otago 2015 —  
Taught one-to-one tutorials on subject specific material. Everything from Foundation level up to 2nd year, mainly mathematics and computer science.

**Tutor** — CompSci Dept, University of Otago 2017 —  
Hosted tutorials three times per week with a class of 20-30 undergraduate students.

## INDUSTRY EMPLOYMENT

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### **Intern iOS Developer**

November 2015 — January 2016

MixBit - Dunedin Office

Worked in a small team developing iOS applications in swift.

## PROJECTS & EXPERIENCE

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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.