



## Objective

To work on interesting products alongside motivated individuals for the betterment of humanity.

## Employment

### Orion Health

Canberra

Junior Software Engineer | Dec 2014 – Present

Graduate Software Engineer | Feb 2014 – Dec 2014

- Full stack developer working on clinical software and drug terminologies.
- Coding experience in Java, Hibernate, Javascript, YUI and SCSS.
- Automated test experience in Arquillian, JUnit, Selenium.
- Certification: Oracle Certified Professional, Java SE 6 Programmer

### Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Canberra

Research Projects Officer | Feb 2012 – Feb 2014

Summer Vacation Scholar | Nov 2011 – Feb 2012

- Collaborated with researchers to create a platform of presenting cutting edge research in an innovative and meaningful way to the general public.
- Created multi-touch application for 3D object manipulation.
- Experience in Python, H3D, Java and Point Cloud Library.

### Australian National University (ANU)

Canberra

Student Ambassador | Mar 2011 – Dec 2013

- Demonstrated research projects and engaged with prospective students.

## Education

### Australian National University | 2010 - 2013

Bachelor of Advanced Computing (Honours) – 1<sup>st</sup> Class Honours | Major in Human Centric Computing

- Undertook honours research project to enable real time manipulation of 3D objects using a multi-touch interface for remote guidance purposes. Imagine a video conference scenario where you can 'touch' objects in the other persons' environment and have your directions projected directly into their environment.
- Worked for Red Hat as part of undergraduate project on detecting vulnerable dependencies at build and run time. As part of this, I created a tool for minifying python files using abstract syntax trees.

### University of Nottingham | Sep 2012 – Jan 2013

Study Abroad Semester

- Undertook modules in Mixed Reality, Computer Graphics, Algorithms, Bioinformatics, Human-Computer Interaction and Cloud Computing

### Australian National University | Dec 2011

Human Computer Interaction Summer School

- Learnt Kinect development and research methods for user studies.

## Major Projects and Publications

**2015 Orion Health:** Creating a global drug model for normalizing international drug terminologies.

**2014 Orion Health:** Web application for maintaining a unified managed list of medications.

**2013 Honours Thesis:** Object manipulation in 3D remote guidance systems.

**Published:** *Matt Adcock, Dulitha Ranatunga, Ross Smith, and Bruce H. Thomas. 2014. Object-based touch manipulation for remote guidance of physical tasks. In Proceedings of the 2nd ACM symposium on Spatial user interaction (SUI '14). ACM, New York, NY, USA, 113-122.*

**Published:** *Ranatunga, D.; Adcock, M.; Feng, D.; Thomas, B., "Towards object based manipulation in remote guidance," in Mixed and Augmented Reality (ISMAR), 2013 IEEE International Symposium on , vol., no., pp.1-6, 1-4 Oct. 2013*

**2013 Red Hat:** Developed a minification tool for python 2.x using abstract syntax trees.

**2013 CSIRO:** Created a 3D volumetric display for public display at Questacon.

**2012 CSIRO:** Developed novel multi-touch interface for interacting with 3D point clouds using Python and H3D. (1000+ lines of code)

## Experiences

SIGGRAPH 2012 Conference

Los Angeles

Student Volunteer | Aug 2012

- Demonstrated at emerging technology stalls for conference contributors.

ANU Computer Science Students Association

Canberra

Vice President | Jan 2011 – Jul 2012

- Organise and promote technology related events for over 300 members and students with an interest in computing at ANU.
- Primary organizer of the event that was awarded 'ANUSA Event of the Year 2012'.

Microsoft Australia

Canberra

Microsoft Student Partner | Jan 2011 – Jan 2012

- Presented a Kinect development workshop in October, 2011  
<https://www.youtube.com/watch?v=FlsKnMKlcg8>

Private Tutor | 2011

Canberra

- Privately tutored Haskell and Java with a focus on COMP1100 at ANU.

## Awards and Honours

**2013:** Ian Ross Honours Scholarship, Research School of Computer Science

**2012:** International Student Exchange Program Grant by DIISRTE

**2011:** Blackhall Undergraduate Prize in Innovation ACT 2011

**2010 and 2011:** ANU Chancellors Letter of Commendation

**2010 and 2011:** College of Engineering and Computer Science Dean's List Award