# Alex Cummaudo

Software Engineer





## Experience

## **Software Engineer and Research Assistant**

Dec 2016-Present

Applied Artificial Intelligence Institute (A<sup>2</sup>I<sup>2</sup>), Burwood

 $A^2l^2$  contributes to the development of human-in-the-loop Al and Al experimentation across all sectors.

- > Research data engineering pipelines to detect alphanumeric sequences in unstructured scenes using machine learning.
- > Developed label annotation software to assist with curating training data that is fed into training AI models.
- > Investigate frameworks to better develop explainable and scalable AI solutions.
- > Developed a data science platform that helps integrate data science and software engineering teams.

Resident Tutor Aug 2017-Present

International House, The University of Melbourne, Parkville

Residential tutor focusing on teaching second-year object-oriented programming using Java.

- > Supplement student knowledge by exposing them to core OOP concepts.
- > Provide further examples in various languages to broaden language exposure.
- > Help prepare students for tests and exams.
- > Provide daily pastoral care and mentoring to students.
- > Assist students with weekly programming tasks and assignments.

Tutor Mar 2017–Jun 2017

Deakin University, Burwood

Teaching a first-year Introduction to Apps Design unit.

- > Introduce app development concepts, such as monetisation and development lifecycles.
- > Develop app prototypes using via mobile-friendly web applications.
- > Introduce students to HTML5, CSS, JavaScript, jQuery and DOM manipulation.
- > Encourage group discussion with students and pairing exercises.

iOS Developer

Aug 2015-Feb 2016

SEEK Ltd., Melbourne

SEEK is Australia's largest jobs, employment, career and recruitment website.

- > Development and release of the SEEK jobseeker iPhone and iPad app.
- > Integrated a prompt for app feedback review, which improved the App Store rating from six 1 star reviews to 33 reviews averaging 4.5 stars on launch-day alone.
- > Added personal recommendations to the jobseeker app, providing thousands of personalised jobs to candidates on their mobiles.
- > Experience with continuous deployment and test-driven development environments.

## **Software Engineer**

Aug 2014-Aug 2015

Swinburne NICTA Software Innovation Lab (SSIL), Hawthorn

SSIL delivers research-driven high-impact software and is partnered with National ICT Australia.

- > Lead drone-flight software project that automates drone flights.
- > Developed fleet visualiser prototype integrated using Google Maps SDK used for bus fleets in Kuala Lumpur.
- > Created a web-based IDE used for rapid prototyping software to create Android apps.
- > Development with bleeding-edge technology stacks and rapid-prototyping environment.

Tutor Mar 2014–Aug 2016

Swinburne University of Technology, Hawthorn

Teaching first-year introductory programming and object-oriented programming units.

- > Engagingly teaching students to learn foundation programming concepts.
- > Group discussion and running group exercises.
- > Preparing students for future programming and problem-solving units.
- > Helping students through basic Pascal, C and C# and giving one-to-one feedback.

#### Freelance UI/UX Designer

Mar 2014-Aug 2016

LeadSoftware, Melbourne

LeadSoftware specialises in complete tracking, logistic and dispatch systems.

- > Lead UX and UI design for FairFind, a global marketplace for antique, fashion, fine art and collectable fairs.
- > Lead UX and UI design for a large-scale on-board taxi dispatch system and iOS/Android apps in development for CABiT, a Melbourne-based Taxi company.
- > Strong interaction with development team to explain prototypes and mock-ups developed and provide feedback on implemented designs.
- > Iterative prototype process using a mix of whiteboard, Pixelmator, Keynote and FluidUI.

#### **Publications**

**ACE 2017** 

Jan-Feb 2017

User Perceptions of Using an Open Learner Model Visualisation Tool for Facilitating Self-regulated Learning

Check-Yee Law, John Grundy, Andrew Cain, Rajesh Vasa, Alex Cummaudo

DOI: 10.1145/3013499.3013502

#### **Open Source**

## **Doubtfire Learning Management System**

Jul 2013 - Present

Postgres Ruby on Rails Grape AngularJS CoffeeScript



github.com/doubtfire-lms

- > Developed majority of web-based front-end
- > Automated processor for student work upload pretty-printed to PDFs
- > Burndown charts to view student progress
- > Visualisations representing student learning
- > Integrated ticketing system for student helpdesk
- > Used at Swinburne, Monash and Deakin universities

#### **SplashKit Educational SDK**

Jul 2016 - Dec 2016

splashkit.io









- > Developed language translation processor
- > Automated C-code library generation using API parser written in Ruby
- > Website development and API documentation

#### Education

## **Bachelor of Information Technology (Honours)**

Mar 2017-Oct 2017

Deakin University, Burwood

H1 - First Class Honours

**Thesis:** Recognition and Prominence Ranking of Alphanumeric Number Sequences in Images

Supervised By: Prof. Rajesh Vasa, A/Prof. Andrew Cain Homepage: http://deakin.edu.au/~ca/alphanum

#### **Bachelor of Science, Software Development Major**

Aug 2013-Dec 2016

Swinburne University of Technology, Hawthorn

GPA 4.0

#### **Victorian Certificate of Education (VCE)**

Feb 2010-Nov 2012

Parade College, Bundoora

Australian Tertiary Admittance Ranking (ATAR) of 98.00 of 99.95.

#### **Awards**

#### **University Medal**

28 August 2017

For being the most outstanding student in the Faculty of Science, Engineering and Technology in 2016.

Awarded by Graham Goldsmith - Chancellor, Swinburne University.

#### **Swinburne Computer Science and Software Engineering Prize**

31 May 2017

In recognition of the highest achieving graduate in the BSc. (Software Development) in 2016. Awarded by Prof. Linda Kristjanson - Vice Chancellor, Swinburne University.

#### **Integrated Application Development James Wauchope Prize**

31 May 2017

In recognition of the highest achieving graduate in the BSc. (Software Development) in 2016. Awarded by Prof. Linda Kristjanson - Vice Chancellor, Swinburne University.

#### **Pham Family Honours Scholarship**

5 Apr 2017

For a high achieving student commencing the BIT (Honours) in 2017. Awarded by Prof. Trevor Day - Executive Dean, Deakin University.

## **Deakin Scholarship of Excellence**

1 Mar 2017

For demonstrating exceptional promise beyond academic achievements. Awarded by Deakin University.

#### 2016 Swinburne Student Achievement Award

**Sep 2016** 

For demonstrating a high level capacity to be flexible, adaptable and in overcoming life's challenges in order to meet study commitments.

Awarded by Swinburne University.

#### **Certificate of Achievement Awards**

Nov 2014, Jul 2015

Highest Achieving Student with the highest marks in nine subjects. Awarded by Prof. John Wilson – Executive Dean, Swinburne University.

## **Certificate of Appreciation Award**

1 Nov 2013

Swinburne ICT Student Ambassador Program.

Awarded by Prof. Leon Sterling – Dean, Swinburne University.

## Vice Chancellor's Scholarship

31 Mar 2013

On outstanding academic excellence.

Awarded by Prof. Linda Kristjanson – Vice Chancellor, Swinburne University.

Dux Award 8 Feb 2013

On excellent VCE results and one of the highest ATAR scores in the college.

Awarded by Dr. Denis Moore – Principal, Parade College.

## References

Available upon request.