Aaron Stockdill

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Education

2017 – 2020 *In progress*
Doctor of Philosophy
University of Cambridge.
Thesis: "Automating representation change across domains for reasoning".

2016
Bachelor of Science with First Class Honours
University of Canterbury, GPA 8.9 of 9.
Major in Computer Science. Report titled "Neuromorphic Computing with Reservoir Neural Networks on Memristive Hardware".

2013 – 2015
Bachelor of Science
University of Canterbury, GPA 8.83 of 9.
Major in Computer Science and Mathematics.

Employment

2017 – 2018 **Supervisor**, *University of Cambridge*.
"Foundations of Computer Science", "Prolog", "Logic and Proof", "Artificial Intelligence".

2017 **Lecturer**, *University of Canterbury*.
"Introduction to Computer Science".

2015 – 2017 **Tutor**, *University of Canterbury*.
"Introduction to Computer Programming", "Introduction to Computer Science", "Algorithms", "Introduction to Computer Networks and the Internet", "Artificial Intelligence".

2014 – 2015 **Software Developer Intern**, *ARANZ Geo Leapfrog*.
Developing Geological Modelling software for the mining industry as a summer internship to get experience at an established software company.

2014 – 2017 **Founder, Web Designer, Programmer**, *Potato Softworks*.
Founded this web design company, lead web designer, software developer.

2014 – 2016 **Mathematics Tutor**, *NumberWorks'nWords*.
Taught students of all school ages, specialising in High School level Algebra and Calculus.

Publications

2017 **Simulating neuromorphic reservoir computing: Abstract feed-forward hardware models**
Stockdill and Neshatian, 2017 International Conference on Image and Vision Computing New Zealand (IVCNZ). `https://dx.doi.org/10.1109/IVCNZ.2017.8402482`

2016 **Restricted Echo State Networks**
Stockdill and Neshatian, AI 2016: Advances in Artificial Intelligence: 29th Australasian Joint Conference, Hobart, TAS, Australia, December 5-8, 2016, Proceedings.
`https://dx.doi.org/10.1007/978-3-319-50127-7_49`

Personal Skills

Communication — Most of my work has been in education, where communication to both large groups and individuals is vital. I have strong conflict-resolution skills. I am a native English speaker, have a functional level of French (approximately B1), and am beginning to learn German.

Organisation — I am an organised person, as evidenced by pursuing higher education, and starting my own company. My extracurricular work requires exceptional planning skills.

Leadership — I run a company, am responsible for many students, and have organised and run events for MathSoc at the University of Canterbury. I am willing to take charge, with the commitment and skills to see a project through to completion at a high standard.

Diligence — As a PhD student, I must complete a long-term project with poorly-defined goals. The research is novel, and requires planning, resource management, motivation, and perseverance to bring to conclusion.

Technical Skills

Concepts — My research focus is artificial intelligence, and I have a deep theoretical knowledge of algorithms and complexity. In mathematics, my focus was graph theory, algebraic structures, and linear algebra.

Lanuages — Python, HTML/CSS/JavaScript, Standard ML, C, Fortran and LaTeX. Working knowledge of Lisp, C++, Haskell, PHP and Scala.

Tools — Confident on the command line, frequently working on remote servers through SSH. I have worked with Docker. VCS experience: Git, Mercurial, and Subversion. My day-to-day editor is Emacs, on macOS. I am comfortable in Linux and Windows.

Awards & Honours

2017 **Hamilton Cambridge International Scholarship**
Selwyn College, University of Cambridge.
Full scholarship to study towards my PhD at the University of Cambridge.

2016 **Graduating BSc(Hons) Computer Science Student of the Year**
University of Canterbury.
Awarded for academic achievement throughout my undergraduate and honours study.

2016 **Summer Research Scholarship**
Department of Physics and Astronomy, University of Canterbury.
To continue my Honours research throughout the summer 2016–2017 break.

2016 **G B Battersby Trimble Scholarship in Computer Science**
University of Canterbury.
Awarded for academic merit, broad knowledge outside of computer science, and research of benefit to New Zealand.

2016 **Freemasons University Scholarship**
for academic merit, community involvement, and leadership potential.

2016 **UC Senior Scholarship**
University of Canterbury, for academic merit from 200 and 300 level courses.

2015 **Page Memorial Prize**
University of Canterbury, for academic achievement in Level 300 Mathematics.

2015 **Allied Telesis Labs Scholarship in Computer Science**
University of Canterbury.

Extra-Curricular

2018 **Selwyn College MCR**
University of Cambridge.
Served as the computing officer, helped run events, and acted as a mentor to new graduate students.

2018 **STIMULUS Volunteer**
University of Cambridge.
Helping out in a local high school with Computer Science subjects.

2016 **Back to School Speaker**
University of Canterbury.
Invited to speak about my university experience to final year students at Cashmere High School on behalf of the University of Canterbury.

2015–2016 **Scholarship Calculus Tutor**
Cashmere High School.
Helped out as a Scholarship Calculus Tutor for advanced Year 13 students. In 2016 my students received a record four scholarships.

2015 **COSC362 Class Representative**
University of Canterbury.
Served as class representative for COSC362: Data and Network Security, a position that works as a mediator between students and staff to resolve any issues.

2014–2016 **Member of MathSoc UC**
University of Canterbury.
Member of the Mathematics Society, on the committee in 2015 and 2016. Involved in tutorials, and developed and ran a LaTeX workshop for Mathematics, Computer Science, and Physics students.

2014–2016 **Member of CompSoc UC**
University of Canterbury.
Member of the Computer Society, on the committee in 2016. Attending and running events, and helping out with tutorials.