

Aaron Stockdill

aaronstockdill@me.com o <https://aaron.stockdill.nz/>

Education

- 2017 – 2020 **Doctor of Philosophy**
In progress *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.

Publications

- 2019 **Inspection and Selection of Representations**
Daniel Raggi, Aaron Stockdill, Mateja Jamnik, Grecia Garcia Garcia, Holly E. A. Sutherland, and Peter C.-H. Cheng, Intelligent Computer Mathematics.
https://dx.doi.org/10.1007/978-3-030-23250-4_16
- 2017 **Simulating neuromorphic reservoir computing: Abstract feed-forward hardware models**
Aaron Stockdill and Kourosh 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**
Aaron Stockdill and Kourosh 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

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.

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 a beginner German speaker (A2).
- Organisation I am an organised person, as evidenced by pursuing higher education and starting my own company. My extra-curricular 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.
- Languages 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. Comfortable with VCS: 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**
Cambridge Trust, 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 **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 **Allied Telesis Labs Scholarship in Computer Science**
University of Canterbury.

Extra-Curricular

- 2019 **Selwyn Postgraduate Seminar**, *University of Cambridge*.
Presented a summary of my PhD work to fellows and graduate students of Selwyn College.
- 2018 **Graduate Symposium**, *Diagrams 2018 Conference*.
Presented a poster and talk, received feedback from academic mentor.
- 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.