

Colin Douch

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British Citizen looking to move to Ireland from New Zealand. Recent graduate in Network Engineering with strong knowledge of networking and associated protocols. Experience designing, building and maintaining highly available, large-scale services, on both Unix and Windows based systems. Proven ability to work on large programming projects in a team based environment, and to pick up new technologies quickly.

Education

Academic Achievements.....

- **Victoria University of Wellington**
Bachelor of Engineering (Hons) majoring in Network Engineering - First Class
- **Victoria University of Wellington**
Summer Research Scholarship
- **Tawa College**
New Zealand Secondary School qualifications
NCEA Levels 1, 2 & 3 Achieved with Merit (Top 20% of cohort)
New Zealand Scholarship in Statistics (Top 2% of cohort)

Previous Employment

- **Xero**
Site Reliability Engineer *January 2016 - Current*
Led efforts to migrate Xeros metrics monitoring infrastructure from DataDog to an in house Prometheus implementation. Formalised the incident management process, and created a ChatBot to help manage it. Worked with the reporting team at Xero as the sole SRE on reliability tasks.
- **Xero**
Automation Engineer Intern *November 2015 - January 2016*
Constructed automation in Ruby, particularly using Chef to automate the provision of infrastructure, in order to support the migration of Xeros production servers and associated infrastructure into AWS.
- **Victoria University of Wellington**
Research Assistant *November 2013 - November 2015*
Used Hadoop and Java to develop and implement several reinforcement learning algorithms, and the production of papers for publication
- **Catalyst IT**
December 2011 - January 2012
Used Java, Python and PHP to contribute to open source programs, including Kiritaki Koha (Android Access for Koha ILS) and Drupal

Technical and Personal skills

- **Programming Languages:** Fluent in C, C++, Java, Python, SQL, JavaScript, PHP and Bash. Working knowledge of x86 Assembly and C#.
- **Software Skills:** Experience with relational database softwares including MySQL, SQLite and PostgreSQL as well as experience with Cassandra and MongoDB. Proficient in the use of Bash and PowerShell as well as vi/vim and emacs.

- **Tool Skills:** Experience with AWS EC2, CloudFormation, Docker, Puppet and DataDog on my personal infrastructure. At work I deal with the whole suite of AWS technologies, Chef, DataDog, SumoLogic and Prometheus.
- **Standards:** Strong understanding of networking and associated protocols including TCP, UDP and ICMP.

Notable Projects.....

- **Research Project:** *'Using Learning Classifier Systems to Learn Stochastic Decision Policies'* As part of my work as a research assistant I helped design and implement a Machine Learning algorithm which utilises the "Natural Gradient" of a problem to better learn optimal solutions. I was responsibly for the implementation and testing of this algorithm, as well as aiding the modifications that were made as we better tuned the algorithm. This work ultimately culminated in a paper for publication and has been accepted by the IEEE Transactions on Evolutionary Computation
- **Project:** *'Balancepoint'* A personal project of mine, Balancepoint is an HTTP load balancer written in Go which I'm constantly updating as I learn new ways to speed it up. At current benchmarks it can handle up to 10000 requests per second.

Interests and extra-curricular activity

- I am a member of the Victoria University tramping club and enjoy going on trips in my free time
- Founding member of the Tawa College coffee club which we developed to 20 members in my final year
- Attendee and Volunteer at KiwiCon, New Zealands top Cyber Security conference