

Patrick Tesh

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Education

University of Edinburgh <i>MSc Artificial Intelligence</i>	Edinburgh 2016–2017
University of Oxford <i>MMath Mathematics (2:1)</i>	Oxford 2011–2015
University College School <i>A-levels: Maths (A*), Further Maths (A*), Physics (A*), Chemistry (A).</i> <i>GCSEs: 10 A*s inc. Maths and English.</i>	London 1998–2010

Experience

BMLL Technologies **London**
Data Scientist *September 2015 – August 2016*

I implemented algorithms for parsing and normalising financial datasets and rebuilding the limit order book. I helped build our back-end systems for ingesting and handling large volumes of data, using Python, AWS and PostgreSQL. I also worked on developing a quantitative pricing model for valuing limit order book data, written in MATLAB. I produced technical, academic-style reports using L^AT_EX detailing my models and met with financial exchanges and platform partners to communicate my work.

St Catherine's College JCR **Oxford**
Treasurer *June 2013–June 2014*

I was responsible for managing the accounts of the college's student union. I liaised with the college administration on financial matters affecting students, such as annual rent changes and the cost of college facilities. I worked effectively as part of the JCR committee to reach decisions on sometimes controversial issues. I also gained experience chairing student body meetings, managing the discussion of, and voting on, student-proposed motions.

QED Analytics **London**
Researcher *July 2013–September 2013*

I worked with several other students on a research project developing tools for machine facial recognition, as part of a broad biometric identification package to complement a previously developed iris scanning system. I developed my knowledge of MATLAB as well as an appreciation of elementary machine learning techniques. I also compiled a detailed report of our results.

Berida Wool Company **NSW Australia**
Farmhand *February 2011–May 2011*

I spent three months during the lambing season on a sheep station in New South Wales, Australia. I worked as the junior member in a team of three on a 3,500 acre farm running 2000 sheep and 200 cattle. This involved dealing with lambing, planting next year's crops, building a new woolshed, renovating farm buildings and working on farm machinery. I learned organisation and teamwork, as well as land management and maintenance.

Professional Skills

Programming: I have used Python, MATLAB and \LaTeX professionally. I am comfortable working in a Linux environment, and have basic BASH scripting skills. I have amateur experience using Java and XML in personal projects developing simple applications for the Android operating system. I have some entry-level understanding of web development with Python.

Software Development: I have experience working in an Agile environment using SCRUM and with continuous delivery. I have used tools such as JIRA, Git, and Jenkins to plan, build and deploy software. I have experience with cloud computing using Amazon Web Services, using the Python *boto3* library to handle large datasets. I have experience working with databases using PostgreSQL and Python.

Academic: At undergraduate level interests were focused on probability theory and statistics. In my final year, I studied courses including Optimization, Machine Learning, MCMC simulation and Numerical Analysis. I also wrote a dissertation on deep learning applications in natural language processing, and their use in natural language inference tasks, which received a first class grade. I am now undertaking an MSc in Artificial Intelligence, in which am further pursuing my interests in machine learning and NLP through both taught modules and an extended research project.

Other Interests

Music: I play the trumpet and the bass guitar. At university I played in a student jazz band, which put on regular concerts as well as playing for parties and events around Oxford. I also played in an band in sixth form in which we rehearsed several hours every week, wrote our own music, and performed in pubs and clubs around North London. I learned to work closely in a creative team and to present to an audience with confidence and style.

Sport: I played hockey for my school's 1st XI, and played regularly at collegiate level at university and for my local hockey club. I also enjoy rowing, climbing, running and endurance sports. I was a member of the Oxford University Mountaineering Club and in 2009 I took part in an ultra-marathon across the Peak District.