

James Scott-Brown

Trinity College,
Cambridge
CB2 1TQ

Date of Birth: October 19, 1991
Citizenship: British

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Education

2010- Trinity College, Cambridge

2012-13 **Part IIB of the Engineering Tripos (Class I)**. Doing project on *Computational Auditory Scene Analysis*, supervised by Dr. Rich Turner. Studying the modules:

4F2 Robust and non-linear systems and control	4M17 Practical optimisation
4F3 Optimal and predictive control	4G5 Molecular modelling
4F10 Statistical Pattern Processing	4G3 Computational neuroscience
4F13 Machine Learning	4E6 Accounting and finance

2012-13 **Part IIA of the Engineering Tripos (Class I)**. Studied the modules:

3E10 Operations Management for Engineers	3G1 Introduction to Molecular Bioengineering
3F1 Signals and systems	3G2 Mathematical Physiology
3F2 Systems and Control	3G3 Introduction to Neuroscience
3F5 Computer and Network Systems	3G4 Medical Imaging and 3D Computer Graphics
3F6 Software Engineering and Design	3G5 Biomaterials

2010-12 **Part I of the Natural Sciences Tripos (Class II)**. Studied Biology of Cells, Physiology of Organisms, Chemistry, and Mathematics B at Part IA. Studied Biochemistry & Molecular Biology, Cell & Developmental Biology, and Mathematics at Part IB.

1996-2010 Portsmouth Grammar School

2010 Received **4 A* grades at A2 level** (Physics, Chemistry, Biology, Mathematics), and **1 A grade** (Further Mathematics), whilst on a Hornby academic scholarship.

2008 Received **10 A* grades at GCSE** (Physics, Chemistry, Biology, Mathematics, Business Studies, History, English, English Literature, Latin, and Classical Greek), and **1 A grade** (French). Also received an **A** in the Additional Mathematics FSMQ, for which there is no A* grade.

Summer Placements

2013 Software Developer Intern at **The MathWorks**. Prototyped a web GUI using JavaScript and the Dojo toolkit. Also implemented a new graph layout and improved GUI for a dependency graph viewer.

2012 Student placement with **Dr Madan Babu Mohan's** group at the MRC Laboratory of Molecular Biology. Constructed a website to visualise and compare networks of non-covalent interactions within proteins. I implemented the front-end in JavaScript with D3.js, and the backend in C++.

2011 Student placement with **Dr Bill Schafer's** group at the MRC Laboratory of Molecular Biology. Wrote a MATLAB program to play videos of experiments, and interact with metadata and annotations stored in both a MySQL database and binary files. I also had some exposure to *C. elegans* experimental methods, including behavioural assays and calcium imaging.

2010 Student placement with **Prof. Jeremy Frey's** group at the University of Southampton. This was mostly spent writing a Ruby on Rails web application to collect experimental data.

2008 Student placement with **Prof. Jeremy Frey's** group. This included writing Perl scripts as part of a laboratory automation project.

Positions of Responsibility

- 2012-14** Webmaster of the First & Third Trinity Boat Club - maintain and update the Linux/Apache/MySQL/PHP website www.firstandthird.org, and associated email system.
- 2011-13** Secretary of the First & Third Trinity Boat Club - responsibilities included making all race entries, arranging three large dinners per year, miscellaneous administration, and keeping accounts. I also rowed in the 2nd men's VIII (2011-12).
- 2011-12** Managing Editor of The Triple Helix (Cambridge Chapter) - overall responsibility for finishing production in InDesign and liaising with printers, as well as running the peer review system and performing general proof-reading/editing.
- 2011-12** Secretary of the Cambridge University Biological Society, and the Trinity College Science Society.
At school I acted as Stage Crew/Stage Management for numerous performances in both school and professional theatres. In December 2010, Stage Managed the musical *Fiddler on the Roof* at the King's Theatre, Southsea.

Computer Skills

General use of Mac OS/Windows/Linux, and common software including Apple iWork/Microsoft Office/OpenOffice.

Command-line use of Unix-like operating systems (Linux, MacOS). Scripting with Bash.

Programming with Perl, Python, Ruby, Java, C++ and MATLAB.

Technical document preparation with L^AT_EX, and desktop publishing with Adobe InDesign.

Web development with PHP/MySQL and Ruby on Rails.

Prizes, Awards & Certificates

Tripes Prize from Trinity College (2013).

Gold Duke of Edinburgh's Award (2009).

Gold Certificates in the British Chemistry Olympiad in both Lower & Upper Sixth (2009 & 2010).

Silver Medal in the British Biology Olympiad whilst in the Lower Sixth (2009).

First prize in the European Society for Human Genetics' annual *DNA Day* essay competition (2009).

The Portsmouth Grammar School's Bosworth Wright Memorial Prize for Science (2009), and Blewitt Cup for Best Prefect (2010).

Gold Medal in Public Speaking from the New Era Academy with distinction (2009).

Royal Yachting Association Day Skipper certificate (2008).

Publications

James Scott-Brown, Harnessing the Cognitive Surplus, *The Science in Society Review* (Cambridge edition), Lent 2011

J A Scott-Brown *et al*, How hot can a fire piston get?, *Phys. Educ.* **45**, 2010, p.328

James Scott-Brown, Adam and Eve and the freeing of information, *Portsmouth Point*, Spring 2009

James Scott-Brown, The Honoured and the Forgotten, *Portsmouth Point*, Autumn 2009