Samuel Hinton

B.E. Software engineering (Hon), B.Sc Physics (Hon)

Contact

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Github
Personal

References available on request.

Programming

JavaScript
HTML5 & CSS3
Python
Java
C, C++
Matlab
SQL
LaTeX

Bash
SVN
Git
Maven
Node.js
AngularJS

Interests

astrophysics
cosmology
computational physics
science communication
software design
web applications
3D modelling
rendering
photomanipulation
CGI & VFX
animations

Education

2010–2015 **Bachelor of Engineering** (Software) — University of Queensland

Awarded 1st class honours and graduated top of engineering cohort. Undergraduate engineering thesis entailed writing the web-application Marz to redshift spectra from the AAOmega spectrograph for the OzDES team.

2010–2015 **Bachelor of Science** (Physics) — University of Queensland

Awarded 1st class honours and graduated top of science cohort. Thesis project investigated the 2D BAO signal found in the final Wigglez dataset to constrain cosmological parameters.

Experience

2010–2014 **GBST** — Brisbane, Queensland, Australia

Software Developer

Developed business intelligence reporting solutions for clients, designing and developing server and client based web application code, creation of large scale SQL queries, experience optimising queries, databases and applications for network, processing and memory constraints, developed back-end server code and front-end web applications. Prioritised implementation tasks for strict release schedules, delegated work tasks for other developers and reviewed incoming work for quality.

2015–2016 **Gemini & Australian Astronomical Observatory** — La Serena, Chile

Research Intern

Internship for the Australian Gemini Undergraduate Summer Studentship. Utilised photometric data of Maffei 1 to determine globular cluster candidates and their properties for spectroscopic follow-up. Utilised data reduction pipelines, automated analysis methods in Python, and applied machine learning techniques to perform object classification.

Recent Awards

2016 **Australian Postgraduate Award** — Australian Government

A PhD scholarship awarded to students of exceptional research potential.

2015 **Australian Gemini Undergraduate Summer Studentships** — AAO

A studentship for a ten week research project at the Gemini South telescope awarded to three students in Australia.

2015 **A.W. Oakes Scholarship** — St John's College

Awarded to an honours student of outstanding academic success and research potential.

2015 **AAO Honours Scholarship** — Australian Astronomical Observatory

Awarded to an honours student undertaking a research project co-supervised by an AAO staff-member.

2015 **Harriet Marks Bursary** — University of Queensland

Awarded to an science honours student for academic merit at the recommendation of the Associate Dean.

2014 **University Medal** University of Queensland
Awarded in recognition of outstanding academic success.

2014 **David Andrew Krnak Memorial Prize** University of Queensland
Awarded to the top graduating engineering student for outstanding academic performance.

2014 **UQ Future Leader** University of Queensland
The UQ Future Leaders program recognises graduating students who have gone beyond their typical program of studies to make a positive impact on campus, their community and even the world.

2014 **IEEE Student Thesis Prize** IEEE
Awarded for the best final year thesis in all fields of electric engineering and information technology.

2010-2014 **RWH Hawken Scholar** University of Queensland
Membership awarded for obtaining the UQ Academic Excellence Scholarship in 2010, and by being in the top 5% of students measured by academic performance.

2014 **IET Student Prize** The Institution of Engineering and Technology
Awarded to a student of outstanding academic accomplishment at the end of their degree.

2014 **GroundProbe Prize** University of Queensland
Awarded for best project in microwave, photonics & communications with regards to my thesis on Automatic and Assisted Redshifting of Astronomical Objects.

Other Awards

2015 **10x Deans Commendation** UQ
2015 **Helen Thompson Prize for All Round Excellence** St John's College
2014 **UQ Summer Research Scholarship** UQ
2012 **Exxon Mobil Achievement Award** Top mechanical engineering student. UQ
2011 **Alstom Prize** Top electrical engineering student. UQ
2011 **Walter Bruce Darker Scholarship** Top 3rd year engineering student. UQ
2010 **UQ Academic Excellence Scholarship** UQ
2010 **ICT Enabling Scholarship** UQ
2010 **John Black Prize** Highest performing first year male. UQ
2009 **OP1** Highest possible secondary education exit score. QTAC

Publications

OzDES multifibre spectroscopy for the Dark Energy Survey: first-year operation and results
Yuan, F. et al.
MNRAS *452 (Sept. 2015) pp. 3047–3063. 2015*
Contibuted redshifts and designed redshifting software.