

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

Education

2010–2015	Bachelor of Engineering (Software)(Hons, 1 st)	University of Queensland
2010–2016	Bachelor of Science (Physics)(Hons, 1 st)	University of Queensland

Experience

2010–2014	GBST <i>Software Developer</i>	Brisbane, Queensland, Australia
	Developed business intelligence reporting solutions , 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 <i>Research Intern</i>	La Serena, Chile
	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.	
2016	Lawrence Berkeley National Laboratory <i>Research Fellowship</i>	Berkeley, California
	Research fellowship at LBNL to work on Bayesian Hierarchical Modelling and its applications to Supernova Cosmology. Specifically, investigating how to use high dimensional hierarchical models to model individual supernova instead of populations to provide better constraints on cosmology using supernova discovered by the Dark Energy Survey.	

Awards

2016	Bok Prize	Outstanding research in Astronomy	Astronomical Society of Australia
2016	Australian Postgraduate Award		Australian Government
2015	Science Faculty Graduate of the Year		UQ
2015	Australian Institute of Physics Prize		UQ
2015	University Medal (Science)		UQ
2015	Rhodes Scholarship Finalist		Oxford University
2015	Australian Gemini Undergraduate Summer Studentships		AAO
2015	A.W. Oakes Scholarship		St John's College
2015	AAO Honours Scholarship		Australian Astronomical Observatory
2015	Harriet Marks Bursary		UQ
2015	10x Deans Commendation		UQ

2015	Helen Thompson Prize for All Round Excellence	St John's College
2014	University Medal (Engineering)	UQ
2014	David Andrew Krnak Memorial Prize	UQ
2014	UQ Future Leader	UQ
2014	IEEE Student Thesis Prize	IEEE
2014	IET Student Prize	The Institution of Engineering and Technology
2014	GroundProbe Prize	UQ
2014	RWH Hawken Scholar	UQ
2014	UQ Summer Research Scholarship	UQ
2012	Exxon Mobil Achievement Award	UQ
2011	Alstom Prize	UQ
2011	Walter Bruce Darker Scholarship	UQ
2010	UQ Academic Excellence Scholarship	UQ
2010	ICT Enabling Scholarship	UQ
2010	John Black Prize	UQ

Communication

2017	World Science Festival Tour Guide Scientific tour guide for the Large Hadron Collider exhibit during the World Science Festival.	Queensland Museum & UQ
2017	FameLab Australia Scientist State finalist FameLab scientist. Public communication through radio interview and stage presentation.	British Council
2017	Guest Scientist Helped script, narrate and appear in a ScopeTV educational astronomy episode on the solar system.	ScopeTV, Channel 10
2017	Science Youth Ambassador Joined Wonder of Science to inspire passion in STEM fields for young school children.	Wonder of Science
2017	Scientists and Mathematicians in Schools Partnered with Buranda State School to bring a positive impact and engagement with STEM fields.	CSIRO
2016	An Evening with Dr Lisa Randall Gave the opening speech for the Brisbane event, talking about the exciting future of astronomy.	ThinkInc
2016	UQ Science Demo Troupe Joined the UQ Science Demo troupe to create resources for the group and participate in UQ demonstrations.	University of Queensland
2016	Uluru Astronomer in Residence Accompanied Sky Tours to answer scientific questions from the public and gave public lectures on popular astronomy topics.	CAASTRO
2015	5-Minute Physics Created interactive simulations and visualisations to increase engagement of students with educational content.	University of Queensland

Publications

Measuring the 2D baryon acoustic oscillation signal of galaxies in WiggleZ: cosmological constraints

Hinton, S. R. et al.

MNRAS 464 (Feb. 2017) pp. 4807–4822. 2017

ChainConsumer

Hinton, S. R.

JOSS 1.4 (Aug. 2016). *The Open Journal*, 2016

Marz: Manual and automatic redshifting software

Hinton, S.R. et al.

Astronomy and Computing 15 (2016) pp. 61–71. 2016

The Taipan Galaxy Survey: Scientific Goals and Observing Strategy
da Cunha, E. et al.

ArXiv e-prints (June 2017). 2017

Discovery of a $z = 0.65$ post-starburst BAL quasar in the DES supernova fields

Mudd, D. et al.

MNRAS 468 (July 2017) pp. 3682–3688. 2017

The 2-degree Field Lensing Survey: design and clustering measurements

Blake, C. et al.

MNRAS 462 (Nov. 2016) pp. 4240–4265. 2016

A Study of Quasar Selection in the Dark Energy Survey Supernova fields

Tie, S. S. et al.

ArXiv e-prints (Nov. 2016). 2016

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