

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> 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.	Brisbane, Queensland, Australia
2015–2016	Gemini & Australian Astronomical Observatory <i>Research Intern</i> 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.	La Serena, Chile
2016	Lawrence Berkeley National Laboratory <i>Research Fellowship</i> 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.	Berkeley, California

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
2009	OP1	QTAC

Communication

2017	Scientists and Mathematicians in Schools	CSIRO
	Partnered with Buranda State School to bring a positive impact and engagement with STEM fields.	
2016	An Evening with Dr Lisa Randall	ThinkInc
	Gave the opening speech for the Brisbane event, talking about the exciting future of astronomy.	
2016	UQ Science Demo Troupe	University of Queensland
	Joined the UQ Science Demo troupe to create resources for the group and participate in UQ demonstrations.	
2016	Uluru Astronomer in Residence	CAASTRO
	Accompanied Sky Tours to answer scientific questions from the public and gave public lectures on popular astronomy topics.	
2015	5-Minute Physics	University of Queensland
	Created interactive simulations and visualisations to increase engagement of students with educational content.	

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

The 2-degree Field Lensing Survey: design and clustering measurements
Blake, C. et al.
MNRAS 462 (Nov. 2016) pp. 4240–4265. 2016

ChainConsumer
Hinton, Samuel
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

Discovery of a $z=0.65$ Post-Starburst BAL Quasar in the DES Supernova Fields
Mudd, D. et al.
ArXiv e-prints (June 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