# **Robert Andrew Spencer**

# Curriculum Vitae

#### PERSONAL DATA

DATE OF BIRTH | 27 November 1994

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#### **EDUCATION**

Reading	PhD in Pure Mathematics at the <b>University of Cambridge</b>
2018	MASt in Pure Mathematics from <b>University of Cambridge</b>
2016	B.Sc. (Hons) (Mathematics) from <b>University of Cape Town</b>
2015	B.Sc. (Mathematics, Applied Mathematics and Physics) from <b>University of Cape Town</b> (3rd Year) awarded with distinction in Applied Mathematics, Mathematics, Physics and the degree with distinction.
2012	Matriculation from <b>Westerford High School</b> Online Courses from <b>MITx and EdX</b>

# **S**CHOLARSHIPS

2018	Trinity Internal Gradutate Studentship PhD Studentship	Trinity College Department of Pure Mathematics and Mathematical Statis
2017	Skye Foundataion Scholarship Skye Cambridge Scholarship	Skye Foundation Cambridge Trust
2016	Innovation Scholarship Roderick Noble Scholarship	National Research Foundation University of Cape Town
2015	Vice Chancellor's Scholarship Science Faculty Scholarship	University of Cape Town University of Cape Town
2014	Vice Chancellor's Scholarship Science Faculty Scholarship Twamley December Scholarship	University of Cape Town University of Cape Town University of Cape Town
2013	Vice Chancellor's Scholarship Computer Science Department Entrance Scholarship Allan Gray Orbis Scholarship	University of Cape Town University of Cape Town

# UNIVERSITY ACHIEVEMENTS

2015	Dean's Merit List MAM3040W Class Medalist PHY3021F Class Medalist PHY3022S Class Medalist
2014	Dean's Merit List PHY2014F Class Medalist
2013	Dean's Merit List PHY1004F Class Medalist CSC1015F Top 3

# WORK EXPERIENCE — REFERENCES AVAILABLE ON REQUEST

2017 — Present **Firmware Contract** Avionic radio firmware - Southwestern Electronics **Software Development Intern** 2017 Android UI Systems (Litho) — Facebook LTD 2016 **Undergraduate Mathematics Tutor** — University of Cape Town 2015 **Software Development Intern** — Amazon Web Services 2014 - 2017**Contract Web Developer** Backend system design Software development — front- and back-end Database design - Playwhoo.com 2013 **Contract Software Developer** Metrological DBMS development InterMet South Africa 2013 **Contract Software Developer** System design and development Database design — Docubot Document Management Software

#### COMPUTER SKILLS

LANGUAGES
OPERATING
SYSTEMS
APPLICATIONS
OTHER
OTHER
OTHER
OTHER
OPERATING
SYSTEMS
APPLICATIONS
OTHER
OTHER
OTHER
OTHER
OTHOR
OFFICE (Comparison)
Python, C, C++, SQL, HTML, css, bash, Delphi Pascal, Mathmatica
Ubuntu Linux , Microsoft Windows
git, MEX
Algorithm design/analysis, system administration

#### LANGUAGES

ENGLISH: | Mother Tongue

AFRIKAANS: Basic

#### INTERESTS AND ACTIVITIES

Recreational Programming; Piano; Archery; Terrain Simulation; Competitive Coding Training; Reading; Electronics; Hiking

### **EXTRA-CURRICULAR ACHIEVEMENTS**

#### AND RESPONSIBILITIES — REFERENCES AVAILABLE ON REQUEST

2016	J 1	
South African International Olympiad in Informatics Team Leader		
	Base leader of Electronics Base, Cederberg Senior Scout Adventure	
2015	South African International Olympiad in Informatics Team Coach	
	South African International Olympiad in Informatics Deputy Team Leader	
2014	South African International Olympiad in Informatics Deputy Team Leader	
	South African International Olympiad in Informatics Team Coach	
	Base leader of Electronics Base, Cederberg Senior Scout Adventure	
	Modern Mathematics International Summer School for Students	
2013	South African December Mathematics Training Camp Coach	
2012	Base staff of Electronics Base, Cederberg Senior Scout Adventure	
	Western Cape Education Department Public Speaking Trophy	
	Google Code-In	
2009 — 2012	Organising committee member, Computers Robots and Electronic Designs Club	
2011	Publication in English Alive	
2009	Founder of Westerford Computers Robots and Electronic Designs Club	

#### **HIGH SCHOOL ACHIEVEMENTS**

2012 | Honikman Honour Award

**Academic Honours** 

Prefect

Best One Act Play Script

Goldblatt Play Characterisation Award

Noel Taylor Public Speaking Trophy

Van Vlaanderen Trophy for Highest Marks in Physical Science and Mathematics

Grade Prize for Physical Science, Advanced Programme Mathematics, English, Geography

Service to Computers Robotics and Electronic Designs Club (founder)

Mathematics Tutor Claremont High School

2011 Best One Act Play Director

Librarian

# **O**LYMPIADS

2016	ACM International Collegiate Programming Contest (Thailand) Standard Bank IT Challange NSUCRYPTO International Students' Olympiad in Cryptography	— Winning Team Western Cape Winning Student
2015	ACM International Collegiate Programming Contest (Morocco) Standard Bank IT Challange	— Winning Team Nationally and Western Cape
2014	International Mathematics Competition (Bulgaria) Standard Bank IT Challange	Second Prize Winning Team Western Cape
2013	International Olympiad in Informatics (Australia) International Mathematics Competition (Bulgaria) South African Tertiary Mathematics Olympiad	Bronze Medal Honourable Mention Winner (undergraduate section)
2012	International Mathematics Olympiad (Argentina) International Olympiad in Informatics (Italy) South African Computer Olympiad UCT Mathematics Competition Mintec Science Olympiad SAASTA Science Olympiad Inter-Provincial Mathematics Olympiad	Honourable Mention  Winner Winner Western Cape Representative 1st in Western Cape Western Cape A Team Captain (winners)
2011	International Mathematics Olympiad (Netherlands) South African Computer Olympiad Baltic Way Mathematics Competition (Germany) UCT Mathematics Competition Inter-Provincial Mathematics Olympiad English Olympiad	Honourable Mention Bronze  Top 10 Western Cape A Team (winners) Silver Award
2010	UCT Mathematics Competition South African Computer Olympiad Inter-Provincial Mathematics Olympiad	Top 10 Bronze Western Cape A Team (winners)
2009	South African Mathematics Olympiad South African Computer Olympiad UCT Mathematics Competition Invitational World Youth Mathematics Intercity Competition (South Africa) Inter-Provincial Mathematics Olympiad	Winner Top 20 Top 10  — Western Cape A Team (winners)
2008	UCT Mathematics Competition Inter-Provincial Mathematics Olympiad	Winner Western Cape A Team (winners)