Shane Weisz

University of Cambridge
Masters Student

👤 16 February 1999

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About Me ——————

I am passionate about all things maths, stats, programming and technology – and leveraging these to solve interesting problems.

I'm fascinated by machine learning, artificial intelligence, software engineering, data science and related fields.

I am hard-working, driven, and always eager to learn new skills and technologies.

Personal Strengths ——

- Problem Solving
- Logical Decision Making
- Attention to Detail
- Time Management
- Reliability
- Empathy

Interests ——————————

Education Qualifications

2021 – 2022	**MPhil in Machine Learning and Machine Intelligence**	University of Cambridge
2020	**BSc (Honours) in Computer Science**	University of Cape Town

Research project: *Convolutional Neural Networks for Network Traffic Classification in Community Networks* (see final paper <u>here</u>)

2017 – 2019	**BSc in Computer Science, Mathematics, and Mathematical Statistics (GPA: 95.96)**	University of Cape Town

The degree was awarded with distinction in all three majors, and the degree with distinction (see academic transcript <u>here</u> and reference <u>here</u>)

2012 – 2016	**IEB Matric Certificate (Average: 97%)**	St David's Marist Inanda

St David's Dux Scholar, and named as an IEB Outstanding Achiever (see Matric Certificate <u>here</u> and reference from Deputy Headmaster <u>here</u>)

UCT Academic Accomplishments

2020 **Roderick Noble Scholarship**
Awarded for outstanding academic achievement and to encourage full-time postgraduate study and research based on work already completed

UCT Council Honours Merit Scholarship

NRF Postgraduate Scholarship

Class Medals (for Highest Achieving Student)
- MAM4019Z (Graph Theory)
- CSC4021Z (Compilers)
- CSC4025Z (Artificial Intelligence)

2019 **Graduated with a Qualification GPA of 95.96**
Including 100% for Mathematics I, II and III, and Statistics I and II.

Class Medals (for Highest Achieving Student)
- MAM3000W (Mathematics III)
- STA3041F (Mathematical Statistics III)
- CSC3002F (Computer Science III)

Investec IT Scholarship (2019, 2020)

Dr Jacob Burlak Memorial Scholarship
Awarded to the top student proceeding to Mathematics III

2018 **Class Medals (for Highest Achieving Student)**
- MAM2000W (Mathematics II)
- STA2004F (Mathematical Statistics II)
- STA2005S (Mathematical Statistics II)
- CSC2001F (Computer Science II)
- CSC2002S (Computer Science II)
- INF2009F (Information Systems II)

Corporate Awards
- BSG Prize for Best Student in Computer Science II
- Saratoga Prize for Top Systems Analysis Project

2017 **Class Medals (for Highest Achieving Student)**
- MAM1000W (Mathematics I)
- STA1006S (Mathematical Statistics I)
- ECO1010F (Microeconomics I)
- ECO1011S (Macroeconomics I)
- ACC1006F (Financial Accounting)
- ACC2011S (Financial Reporting I)

Corporate Awards
- Bain Awards for Best 1st Year Business Science Student
- SAICA Awards for Best Student in Accounting I
- School of Economics Prize for Best Economics I Student

UCT Vice-Chancellor's Scholarship

Dean's Merit List (2017, 2018, 2019)

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High School Academic Accomplishments

2016 **Nine distinctions in the 2016 IEB Examinations**
Including 100% for Mathematics and Physical Sciences

Average of 97% in the 2016 IEB Examinations
Received 94% or above for all subjects

Named as an IEB Outstanding Achiever
Ranked in the top 1% of students for English, Afrikaans, Maths, AP Maths, History, Accounting, Life Orientation and Physical Sciences.

St David's Subject Prizes for Top Student
For English, Maths, AP Maths, History, Accounting, Life Orientation, Physical Sciences and Information Technology.

The Malcolm Williams Trophy for English Creative Writing

Work Experience

Jan – July 2021 **Backend Software Developer** *Nomanini*
Contributed development to a microservices backend architecture built predominantly with TypeScript and Node.js, running as Docker containers on a Kubernetes cluster. My work included extending the platform by integrating with 3rd party APIs, adding new product features, and maintenance of the existing platform. I obtained significant experience with both REST and GraphQL APIs. Technologies most frequently used include MySQL, Google Cloud Platform, GitLab CI/CD, Docker, Kubernetes, Helm and Argo Workflows.

June – July 2019 **Data Science Intern** *Isazi Consulting*
Wrote Python and Bash scripts for the refinement of the Tesseract OCR engine, by generating character-level confusion matrices that are supplied as weights to the Levenshtein string distance algorithm.

July 2017 **Programming Intern** *Corion Capital*
Wrote various statistical modules and functions using Ruby – used for equity benchmarking and option pricing.

Extra-Curricular Achievements

Sport Southern Gauteng Hockey U14A & U16A, and St David's 1st XI.

Selected for Gauteng North Cricket, Gauteng Central Tennis and Rand Central District Soccer at various stages of my school career.

Coding Competitions Solved 111 problems on Project Euler - a platform offering a series of challenging mathematical and programming challenges. This places me in the top 1% of over one million users.

Top 5% in the ProHack 2020 Data Science Hackathon offered by McKinsey, optimizing the allocation of funds to countries so as to maximize predicted increase in country well-being.

Mathematics Olympiad Reached the Final Round of the South African Mathematics Olympiad, and placed 3rd in Gauteng in 2015 and 2016.

Member of the Southern Gauteng Mathematics Team that participated in the Southern African Interprovincial Olympiad.

Mathematics Olympiad 2011 Provincial Winner – 1st in Gauteng.

Leadership Experience

Volunteer Camp Counsellor I volunteered for 8 weeks as a Madrich (counselor) at the Habonim summer camp over December 2017 and 2019, as part of a team supervising, leading, educating and inspiring a group of over 100 middle school children. Habonim Dror South Africa operates as a Public Benefit Organization with a focus on outreach and social development both within the Jewish and wider South African community (see reference from Secretary General here)