Bram Schönfeldt

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Nationality: South African

Education

2021 **MSc Applied Mathematics, University of Cape Town**
I am pursuing a research-based Master's over the next 10 months exploring an intersection of machine learning and statistical physics supervised by Dr Jonathan Shock and Dr Christian Rohwer.

2020 **BSc Honours Applied Mathematics, University of Cape Town**
Thesis: 'Convolutional Neural Networks for Fast Radio Burst Classification'.
Supervised by Prof Amanda Weltman and Dr Jonathan Shock.
Reading module project: 'Interpretability and Reinforcement Learning'.
Supervised by Dr Jonathan Shock.
Expected to graduate with distinction and a final GPA of 90%.
Achieved the highest marks in Stochastic Processes and Visualisation.
Honours year funded by the National Research Foundation.
Awarded a UCT Council honours merit award.

Courses and Provisional Marks

Thesis 93
Graph Theory 85, Stochastic Processes 93, Visualisation 91, Reinforcement Learning 80, Complexity Theory 85, Analytics 92, Artificial Intelligence 95

2017-2019 **BSc Applied Mathematics & Computer Science, University of Cape Town**

2019 Final project: 'Truncated Lévy Flights to Fight Crime.' Supervised by Dr Nora Alexeeva.
Presented my final project at the South African Mathematical Society annual congress.
Graduated with distinction and a final GPA of 82.58%.

2018 Selected to go on a funded 6 month exchange to UC Berkeley.

2017-2019 Science faculty scholarship
Dean's merit list

2012-2016 **St John's College, Houghton**
Matriculated with 8 distinctions ranking in the top 5% of learners for 6 or more subjects.

Work Experience

Intern at DataProphet

2020 Conducted market research and assisted in writing content briefs on digital transformation in industrial manufacturing.

Intern at the Gauteng City Region Observatory

2019 Many people have to make the difficult decision to live away from their families. Using regression analysis, I explored how income, sex, population group and other factors impact the proportion of a person's dependents that live with them.

2018 In South Africa, feeder zone policies dictate which schools children can attend based on their location. As my first time working at GCRO, I had to first come to terms with working with a big dataset. I then visualised the implications of changes to feeder zone policies.

2019-2020 Tutor for Computer Science, Mathematics and Statistics

I was a university employed tutor and tutored the 2nd and 3rd year Computer Science courses, the Multivariable Calculus course and the Introductory Statistics course.

Skills and Interests

- Machine learning with Python and TensorFlow 2
- Statistical analysis in R
- Version control with Git
- Typsetting with LaTex
- Public speaking
- Composition and music production with Ableton Live
- Sketching, painting, animation, photography

Societies and hobbies

2017-2020 UCT Mountain and Ski Club
2019-2020 UCT Surf Society
2018 UCT Fencing
2009-2021 Classical guitar

Languages