

BRADLEY C. CARRUTHERS

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PERSONAL DETAILS

Nationality: South African

Languages: English (First language proficiency), Afrikaans (Fluency)

TECHNICAL SKILLS

Competent: Python, SQL, Git, R, Data Science, Machine Learning, L^AT_EX

Conversant: Spark, Java, Cloud Computing (Google Cloud, AWS), Unix Shell Scripting, Web Scraping, Stata, SAS, Iress/INET Bridge Infront

Underway: Docker, Flask

EDUCATION

London School of Economics and Political Science

Masters in Statistics (Research)

September '18 - September '19

Received full funding from the Commonwealth Scholarship Committee

Thesis: Predicting Community Engagement with Questions in the StackOverflow Online Question-Answer Community

Supervisor: Prof. Milan Vojnovic

Subjects: Distributed Computing for Big Data, Quantitative Text Analysis, Algorithms and Computation, Fundamentals of Social Science Research Design, Statistical Inference

Stellenbosch University

Honours Bachelor of Commerce (Economics) Cum Laude

January '17 - December '17

Thesis: Teachers' perceptions of self-efficacy, job satisfaction and learner performance: An investigation into the 2004 Grade 6 Intermediate Phase Systemic Evaluation

Supervisor: Dr. Debra Shepherd

Subjects: Masters Econometrics, Microeconomics, Macroeconomics, The Economics of Technological Change, Development Economics, Public Economics, Labour Economics, The Economics of Education

Honours Bachelor of Commerce (Statistics) Cum Laude

January '14 - December '14

Thesis: A Broad Summary of Statistical Process Control

Supervisor: Dr. P.J.U. van Deventer

Subjects: Multivariate Methods, Applied Time-Series, Datamining, Biostatistics, Stochastic Modelling, Applied Stochastic Simulation, Introduction to R Programming

Bachelor of Commerce (Mathematical Sciences)

January '11 - December '13

Average grade: 75%

Awards: Became a member of the Golden Key International Honour Society in 2012

iXperience Cape Town

Applied AI Short Course

June '17 - July '17

Topics covered: Natural Language Processing, Multi-Layer Perceptrons, Recurrent Neural Networks, Convolutional Neural Networks, XGBoost, Tensorflow, Keras

Final Project: An Analysis of South African Education Data using Machine Learning Techniques

CFA Institute

Passed Level 1 of the Chartered Financial Analyst Exam

December '15

Subjects achieved over 70%: Economics, Ethical & Professional Standards, Quantitative Methods, Portfolio Management, Equity Investments, Fixed Income Investments, Alternative Investments

Subjects achieved between 50% and 70%: Derivatives, Corporate Finance, Financial Reporting & Analysis

iXperience

Data Science Teaching Assistant (Lisbon)

May 2019 - July 2019

Academic Manager (Cape Town)

February 2018 - August 2018

Data Science Teaching Assistant (Cape Town)

May 2018 - July 2018

iXperience is a study-abroad career accelerator for talented students from the world's top universities, with campuses in Lisbon, Berlin, Tel Aviv and Cape Town. As a Data Science Teaching Assistant in both Cape Town and Lisbon I collaborated with the Head Teacher in preparing course content, exercises and projects, as well as was responsible for assistance of students during their exposure to the full toolkit of data science. I was also employed by iXperience as an Academic Manager on the Cape Town campus in 2018 where I helped design and implement research-backed educational practices across the diverse courses offered, helped manage and onboard Head Teachers and Teaching Assistants to build and teach the courses, and lastly helped manage the success of all classroom learning.

SecureWealth

Investment Analyst, Financial Adviser

November 2014 - January 2018

SecureWealth is a Cape Town-based asset and wealth manager. Throughout my work here, I was responsible for market research and served in a client-facing role. I used fundamental and technical analysis, investment suitability, local and offshore economic forecasting, and strategic asset allocation to manage clients' wealth.

Stellenbosch University

Economics Department Lecturer

January 2018 - June 2018

As a Lecturer for the Stellenbosch University Economics Department, I lectured over 300 first-year students on microeconomics. Other duties included general course administration, as well as communication and coordination with the lecturing team.

Mathematics Division Teaching Assistant

September 2013 - March 2016

I was privileged to be chosen as the first Teaching Assistant for the Stellenbosch University Mathematics Division's first year Mathematics program. I assisted in redesigning the first year Mathematics course structure, facilitated effective communication between academic staff, assistants and students, supervised a team of 20 Mathematics Tutor Assistants for weekly tutorials and lectured groups of 300 students during weekly tutorials.

Metanoia Residence HK: Treasurer Portfolio

September 2012 - September 2013

I was chosen as a student leader for the Stellenbosch University Metanoia Residence with the portfolio of Treasurer. In this role I was responsible for managing the residence's finances throughout the year which included events and general activity of the residence's 500 students.

SOFT SKILLS

- I have had the opportunity to fulfil a number of leadership and team management roles, and have worked across diverse teams in both an academic and professional environment.
- I enjoy public speaking, networking, and training/mentoring.
- I consistently challenge myself to present technically complex work in an accessible and meaningful manner, and to communicate clearly and effectively with clients and colleagues.

OTHER ACTIVITIES

- **Somerset College Trek, 2016:** I lead a group of fourteen Grade/Year 9s for a twenty-seven day hike, cycle and canoe on a 350km journey from Somerset College to De Hoop Nature Reserve, South Africa.
- **Various Talks on Mathematical, Scientific and Philosophical Topics, 2011-2012:** Organised talks for first year Mathematical Sciences students on mathematical, scientific and philosophical subjects at Stellenbosch University, South Africa.
- **Scholar Exchange to Australia, 2008:** Participated in a 10 week exchange in Grade/Year 10 to Ballarat, Australia.

REFERENCES

Ms Nicola Weaver	VP of Education, iXperience	(+27) 76 212 8941	nicola@ixperience.ac.za
Mrs Maryka Smit	Investment Analyst and Wealth Manager, SecureWealth	(+27) 73 273 9547	maryka@securewealth.co.za
Dr Karin-Therese Howell	Senior Lecturer, Stellenbosch University Mathematics Division	(+27) 21 808 3281	kthowell@sun.ac.za
Dr Debra Shepherd	Researcher and Lecturer, Stellenbosch University Economics Department	(+27) 76 696 0258	debrashepherd@sun.ac.za
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