#### Curriculum Vitae

# BRADLEY C. CARRUTHERS

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#### PERSONAL DETAILS

Nationality: South African Marital Status: Married Languages: English (First language proficiency), Afrikaans (Fluency) Spouse's Occupation: Qualified Occupational Therapist

#### **EDUCATION**

September '18 - September '19 Masters in Statistics (Research) London School of Economics and Political Science

- · Full Funding from Commonwealth Scholarship Committee
- · Supervisor: Milan Vojnovic
- · Thesis: To Be Decided
- · Subjects: Statistical Inference, Algorithms and Computation, Fundamentals of Social Science Research Design, Distributed Computing for Big Data, Quantitative Text Analysis, Bayesian Machine Learning (Audited), Social Network Analysis (Audited)

January '17 - December '17

Stellenbosch University

Honours Bachelor of Commerce (Economics) Cum Laude

- · Supervisor: Dr Debra Shepherd
- · Thesis: Teachers' perceptions of self-efficacy, job satisfaction and learner performance: An investigation into the 2004 Grade 6 Intermediate Phase Systemic Evaluation
- · Subjects: Masters Econometrics, Microeconomics, Macroeconomics, Development Economics, Public Economics, Labour Economics, The Economics of Education, The Economics of Technological Change

June '17 - July '17

Applied AI Short Course

iXperience

- · Topics covered: Tensorflow, Natural Language Processing, Multi-Layer Perceptrons, Recurrent Neural Networks, Convolutional Neural Networks, Xgboost, Keras
- · Final Project: An Analysis of South African Education Data using Machine Learning Techniques

December '15

CFA Institute

Passed Level 1 of the Chartered Financial Analyst Exam

- · Subjects achieved over 70%: Alternative Investments, Economics, Equity Investments, Ethical & Professional Standards, Fixed Income Investments, Portfolio Management, Quantitative Methods
- · Subjects achieved between 50 and 70%: Corporate Finance, Derivatives, Financial Reporting & Analysis

January '14 - December '14

Stellenbosch University

Honours Bachelor of Commerce (Statistics) Cum Laude

- · Supervisor: Dr PJU van Deventer
- · Thesis: A Broad Summary of Statistical Process Control
- · Subjects: Multivariate Methods, Applied Time-Series, Datamining, Biostatistics, Stochastic Modelling, Applied Stochastic Simulation, Introduction to R Programming

iXperience June 2018 - July 2018

Data Science Teaching Assistant

- · Course and culture preparation (content creation, information sessions etc.)
- · Assisted with creation of lectures, exercises, quizzes, and projects
- · Lectured on data science topics and held workshops

iXperience February 2018 - August 2018

Academic Manager

- · Helped design and implement research-backed educational practices for courses
- · Helped manage and onboard Head Teachers to build and teach courses
- · Helped manage and onboard Teaching Assistants to support Head Teachers
- · Helped manage the success of classroom learning during the iXperience program

Stellenbosch University Department of Economics Lecturer

January 2018 - June 2018

- · Lectured over 300 first-year students on Microeconomics (Economics 114)
- · General course administration and coordination, weekly meetings with lecturing team

SecureWealth (Pty) Ltd

November 2014 - January 2018

Investment Analyst and Financial Adviser

- · Fundamental analysis, investment suitability, strategic asset allocation
- Economic and market forecasting, research on both local and overseas markets and financial products

Stellenbosch University Mathematics Division Teaching Assistant

September 2013 - March 2016

- · Assisted in redesigning the First Year Mathematics course structure
- Facilitated effective communication between academic staff, assistants and students
- · Supervised a team of 20 Mathematics Assistants for weekly Tutorials
- Assisted students during Tutorials

#### TECHNICAL SKILLS

- · Competent: R, Python, Data Science, Data Analysis, Machine Learning, Web Scraping, Amazon Web Services (AWS), Google Cloud
- Conversant: Git, SQL, Stata, SAS, INET Bridge Infront, HTML, CSS

## **SOFT SKILLS**

Leadership, management, public speaking, networking, communication, training, mentoring

### OTHER ACTIVITIES

- · Somerset College Trek: Lead a group of fourteen Grade 9s for a twenty-seven day hike, cycle and canoe on a 350km journey from Somerset College in Somerset West, South Africa to De Hoop Nature Reserve.
- · Various Talks on Mathematical, Scientific and Philosophical Topics: Organised talks for First Year Mathematics 114/144 students and others on Mathematical, Scientific and Philosophical subjects at Stellenbosch University, South Africa.
- Scholar Exchange to Australia Participated in a 10 week exchange in Grade 10 to Ballarat, Australia.