

# BRADLEY C. CARRUTHERS

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## EDUCATION

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### **Masters in Statistics (Research) with Merit**

*September '18 - September '19*

*London School of Economics and Political Science*

Awards: Commonwealth Scholarship for academic excellence

Thesis: Predicting Community Engagement with Questions in the StackOverflow Online Q&A Community

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

### **Honours Bachelor of Commerce (Economics) with Distinction**

*January '17 - December '17*

*Stellenbosch University, South Africa*

Thesis: Teachers' perceptions of self-efficacy, job satisfaction and learner performance

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) with Distinction**

*January '14 - December '14*

*Stellenbosch University, South Africa*

Thesis: A Broad Summary of Statistical Process Control

Subjects: Multivariate Methods, Applied Time-Series, Datamining, Biostatistics, Stochastic Modelling, Applied Stochastic Simulation

### **Bachelor of Commerce (Mathematical Sciences)**

*January '11 - December '13*

*Stellenbosch University, South Africa*

Average grade: 75%

Awards: Golden Key International Honour Society membership for academic excellence

### **Passed Level 1 of the Chartered Financial Analyst Exam**

*December '15*

*Chartered Financial Analyst Institute*

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## WORK EXPERIENCE

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### **Data Science Teaching Assistant (Lisbon)**

*May 2019 - July 2019*

*iXperience Pty Ltd - Technology focused education provider*

- Enhanced and improved the iXperience data science curriculum to be more practical and instructional
- Demonstrated the full toolkit of data science to talented students - from data processing, cleaning and exploratory analysis to natural language processing, dimensionality reduction, clustering and machine learning
- Personally taught classes on cloud computing and distributed data using Google Cloud Platform and PySpark
- Supervised student internships which included telecommunications, hospital & healthcare, digital marketing, retail analytics and tourism
- Received outstanding feedback on the value I added both in the classroom and for iXperience

### **Data Science Teaching Assistant (Cape Town)**

*May 2018 - July 2018*

*iXperience Pty Ltd*

- Built and taught a diverse, state-of-the-art data science curriculum as part of a dynamic teaching team
- Presented a full spectrum of data science to students - from data wrangling, web scraping, visualisation and software version control to machine learning, deep learning and cloud computing using AWS
- Supervised student internships which included machine learning consulting, travel booking, a digital micro-job platform and a meal ordering and delivery app
- Received outstanding feedback on the value I added to both students and the company

### **Academic Manager (Cape Town)**

*February 2018 - August 2018*

*iXperience Pty Ltd*

- Designed and developed cutting-edge courses (including Data Science, Full Stack Coding and FinTech/Blockchain) by implementing research-backed educational practices

- Sourced, integrated and managed highly-skilled Head Teachers and Teaching Assistants to teach courses
- Analysed and actioned key performance indicator data (NPS) from courses to ensure student learning success

### **Analyst**

*November 2014 - January 2018*

*Secure Wealth Pty Ltd - Asset and wealth manager, USD 53 million AUM*

- Processed, cleaned and analysed financial data received from investment houses
- Improved the company data management plan, enhanced the confidentiality and digitalisation of client data
- Trained office staff regarding data protection, administration and management
- Managed and oversaw local and offshore investment portfolios for individuals, companies and trusts
- Conducted rigorous market and economic research to provide above-inflation portfolio performance
- Consulted with and advised clients on how to manage their wealth and generate capital growth
- Effectively communicated complex financial concepts to clients and established constructive relationships

### **Microeconomics Lecturer**

*January 2018 - June 2018*

*Stellenbosch University, South Africa*

- Lectured on microeconomics concepts to over 350 undergraduate students from across South Africa
- Inspired students and substantially increased their interest in economics as a subject

### **Pure Mathematics Teaching Assistant**

*September 2013 - September 2016*

*Stellenbosch University, South Africa*

- Redesigned and enhanced the first year pure mathematics course structure for over 1000 students
- Facilitated correspondence and coordination between academic staff, student tutors and students
- Managed and led a team of 20 tutors for weekly tutorials

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## TECHNICAL SKILLS

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### **Competent:**

- Python
- SciPy Stack
- SQL
- Spark
- Git
- R
- Data Processing and Analysis
- Machine Learning
- Natural Language Processing
- Econometrics
- Stata

### **Conversant:**

- Unix
- Google Cloud Platform (GCP)
- Amazon Web Services (AWS)
- MS Excel
- Hadoop
- Hive
- Java
- Tensorflow
- Docker
- Web Scraping
- Statistical Computing

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## PERSONAL DETAILS

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**Nationality:** South African

**Languages:** English, Afrikaans