

EDUCATION & TRAINING

University of Cape Town

Masters in Advanced Analytics and Decision Sciences (Distinction) February 2015 to February 2017

Thesis: Identifying Predictors of Evolutionary Dispersion with Phylogeographic Generalised Linear Models

Supervisors: Dr Miguel Lacerda, Dr Ben Murrell (University of California, San Diego)

Masters programme by coursework and dissertation. Selected coursework included: Machine Learning, Advanced Regression, Simulation and Optimisation, C++ Programming for Scientists and Engineers, Probability Theory. Coursework awarded with distinction. Thesis currently under examination.

BSc Honours in Mathematical Statistics (First Class) February 2014 to November 2014

Thesis: An Application of Machine Learning to Stock Differentiation in the South African Fisheries

Supervisors: Assoc. Prof. Ian Durbach, Dr Melvin Varughese

Selected coursework in statistics included Analytics, Theory of Statistics, Time Series, and Multivariate Statistics. Completed multiple pure mathematics honours courses: Measure Theory, Topology and Functional Analysis.

Bachelor of Science in Mathematical Statistics February 2011 to November 2013

Average Grade: 74.73/100

SCHOLARSHIPS & AWARDS

Member of global 2nd place team for Barclays Data Wars Hackathon 2015

Class medal for Masters degree coursework

Honours degree awarded in first class 2014

Dean's Merit List (weighted average mark > 75%) 2013

Commerce Faculty scholarship 2012

Dean's Merit List

Harry Allschwang entrance scholarship 2011

Commerce faculty scholarship

Class medal for Evidence-based Management

Dean's Merit List

EXPERIENCE

University of Cape Town

Statistics Tutor July 2016 to October 2016

Tutored the third-year statistics major course STA3043S: Decision Theory and Generalised Linear Models, covering the foundations of Bayesian statistics and advanced modelling applications in R.

Mathematics Tutor February 2016 to October 2016

Tutored the second-year pure mathematics major course MAM2000W, covering modules in linear algebra and advanced calculus. Helped to lead whiteboard workshops for the first-year pure mathematics major course MAM1000W.

Head Statistics Tutor February 2015 to November 2015

Led a team of 24 tutors for the first year statistics major courses STA1000F and STA100S. The courses cover the foundations of statistical inference and regression, and use Excel as a platform for simulation and data manipulation. Coordinated and presented course material in weekly long workshops.

Course Coordinator June 2015 to July 2015

Ran the online component of STA1000L winter school- responsible for the operation of the Vula site, setting tests and managing the forum for course material queries.

Statistics Tutor July 2014 to October 2014

Tutored the third-year statistics major course STA3043S: Decision Theory and Generalised Linear Models.

Programming and Technical

Extensive exposure & advanced proficiency in:

- Python
- R
- Excel
- L^AT_EX

Intermediate proficiency in:

- C++
- Julia
- SQL
- STATA
- VBA

Problem Solving

- Multiple projects completed solving novel data-based problems – building analytical methods and tailoring analyses to specific scenarios.
- Integration of coursework in mathematics, applied statistics and computer science.
- Collaborative engineering of machine learning solutions during hackathon.

Teamwork and Interpersonal

- Adaptation of statistical problem sets for presentation with teams of six tutors.
- Participation in weekly feedback and input from team of tutors.
- Delegation of responsibilities, planning and group brainstorming within student organising committees.

Communication

- Presentation of course material to groups of 200 students in weekly statistics workshops.
- Management of fora and email correspondence for student queries. Intermediary between team of tutors and convenor.

PROFESSIONAL DEVELOPMENT

Big Data University – <i>Deep Learning with Tensor Flow</i>	<i>2017</i>
University of Michigan on Coursera – <i>Introduction to Data Science in Python</i>	<i>2017</i>
University of Cape Town on Coursera – <i>Julia Scientific Programming (with honours)</i>	<i>2016</i>

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS

South African Statistical Association – <i>Full member</i>	<i>February 2015 to Present</i>
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SOCIAL ENGAGEMENT

Reclaim The City – <i>Campaign supporter and volunteer</i>	<i>February 2016 to Present</i>
Reclaim The City advocates for state-subsidised, affordable housing development in the Cape Town city bowl, and protects the rights of the poor to homes and remaining near the city.	

Workers and Community Solidarity Fund – <i>Organising committee member</i>	<i>October 2015 to Present</i>
Started at the University of Cape Town, WCSF fundraises to support worker and community activism.	

REFEREES

Ian Durbach	Associate Professor, Statistics, UCT African Institute for Mathematical Sciences	ian.durbach@uct.ac.za
Kenneth Rafel	Senior Lecturer, Mathematics, UCT	kenneth.rafel@uct.ac.za