Tim Wolff-Piggott

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Work Experience

DataProphet

Senior Data Scientist   *April 2018 — Present*

Data Scientist   *May 2017 — April 2018*

Work at DataProphet spans multiple industries and involves the development and deployment of powerful machine learning solutions. We have deep technical expertise and actively focus on researching and developing bleeding edge Deep Learning architectures in Tensorflow, Keras and PyTorch. We work across multiple cloud computing platforms (AWS, Google Cloud and Mircosoft Azure) to integrate seamlessly with clients' infrastructure, and deploy scalable and effective web services according to clients' needs. Wide exposure to big data processing, developing robust data pipelines and frameworks such as Spark.

iXperience

Head Teacher: Data Science   *June 2018 — July 2018*

iXperience is a study-abroad career accelerator for students from the world's top universities, with campuses in Lisbon, Berlin, and Cape Town. I developed a novel Python-based Data Science curriculum and delivered an intensive four-week program exposing talented international undergraduate students to the full toolkit of data science from data ETL to Deep Learning. The curriculum is accessible via my Github account.

Education & Training

University of Cape Town

Masters in Advanced Analytics and Decision Sciences (with 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 and degree awarded with distinction. Class medallist.

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

Skills

Programming and Technical

Extensive exposure & advanced proficiency in:

- Python
- SQL
- Cloud computing (AWS, Azure and Google Cloud)
- Git
- Shell scripting
- LaTeX

Intermediate proficiency in:

- Spark
- Terraform
- C++
- R
- Julia
- STATA
- VBA

Extensive experience working in the Linux command line and on headless servers. I often use Vim as a highly productive development environment. Wide-ranging exposure within the cloud computing ecosystem.

Problem Solving

- Worked across industries on data-driven challenges – building analytical methods and tailoring solutions to specific contexts.
- Engineered Deep Learning solutions across the domains of natural language processing, predictive modelling and sequential data, with rigorous model evaluation.
- Deployed highly performant web services exposing APIs to predictive modelling.

Teamwork and Interpersonal
- Led multiple projects with clients in the financial, industrial, legal and academic industries.
- Structured project plans and guided teams of data scientists and engineers to project completion from data ETL to productionisation and integration.
- Collaborated on codebases and conducted multiple reviews for internal research projects.

Communication
- Interfaced directly with clients through the course of multiple projects, through the process of full solution integration with their infrastructure.
- Consistently challenge myself to present technically complex work in as accessible and meaningful a manner as possible, communicating clearly and effectively with clients and colleagues.
- Conducted multiple professional and research presentations, as well as an intensive four week course on Data Science.

Professional Development

University of Toronto on Coursera – *Neural Networks for Machine Learning*   *2017*
Big Data University – *Deep Learning with Tensor Flow*   *2017*
University of Michigan on Coursera – *Applied Machine Learning in Python*   *2017*
University of Michigan on Coursera – *Introduction to Data Science in Python*   *2017*
University of Cape Town on Coursera – *Julia Scientific Programming (with honours)*   *2016*

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

Academic 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.

Membership of Professional Associations

South African Statistical Association – *Full member*   *February 2015 to Present*

Social Engagement

Reclaim The City – *Campaign supporter and volunteer*   *February 2016 to Present*
Reclaim The City advocates for the development of state-subsidised, affordable housing near the Cape Town city bowl, and for the rights of the poor to homes with access to the city.

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