

# DEVIN TAYLOR

## Machine Learning Engineer

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📍 Johannesburg, South Africa

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## EDUCATION

### University of Cambridge

Master of Philosophy Advanced Computer Science

📅 Nov 2018 – July 2019

📍 Cambridge, United Kingdom

- Graduated with distinction
- **Dissertation:** Hierarchical multi-head co-attention for interpretable cross-modal deep learning (mark: 87/100)

### University of the Witwatersrand

Bachelor of Science Engineering (Electrical) (Information)

📅 Jan 2015 – Dec 2016

📍 Johannesburg, South Africa

- **Dissertation:** Accelerometer-based modulated artificial horizon system for countering motion sickness (mark: 96/100)

Bachelor of Engineering Science Biomedical Engineering

📅 Jan 2012 – Dec 2014

📍 Johannesburg, South Africa

## EXPERIENCE

### Nedbank CIB

Quantitative Analyst

📅 Nov 2019 – present

📍 Johannesburg, South Africa

- Design and implement algorithmic trading strategies.
- Identify, scope, and implement data science strategies.
- Technical adviser to the venture capital team.

### Isazi Consulting

Data Scientist

📅 Dec 2016 – Sep 2018

📍 Johannesburg, South Africa

- Technical lead in product development. Managed a team in designing, developing and deploying scalable machine learning products.
- Machine learning consultant. Identified, scoped, and implemented machine learning solutions for various clients.
- Machine learning researcher facilitating product development.

Data Science Intern

📅 Dec 2015 – Nov 2016

📍 Johannesburg, South Africa

- Design and build hardware and software for automated tracking of advertisements played on radio stations.

### Aerial Monitoring Solutions

Software Engineer Intern

📅 June 2015 – July 2015

📍 Johannesburg, South Africa

- Design and develop front-end and back-end of application for drone ground control station.

## SKILLS

Python, C++, R, Keras, PyTorch,  $\text{\LaTeX}$ , Unix  
Go, Matlab, Tensorflow, SQL  
Assembly, Julia



## RESEARCH

### Refereed workshop publications

- Taylor, D., Spasov, S., Li'o, P., "Co-Attentive Cross-Modal Deep Learning for Medical Evidence Synthesis and Decision Making". In machine learning for health workshop, NeurIPS, Vancouver, Canada (2019).

### Organising

- **Conferences:** IndabaX South Africa 2020
- **Tutorials:** Deep Learning Indaba Kenya 2019

### Reviewing

- **Workshops:** ML4H NeurIPS 2019
- **Conferences:** ACM CHIL 2020

## PROJECTS

### Multimodal Data Augmentation Library

- Develop and maintain an open-sourced library for augmenting different modes of data across a dataset for training cross-modal models.

### Handwriting OCR Product

- Technical lead in the development of an end-to-end handwriting OCR product for automated data capturing, improving capture throughput by a factor of 20.
- Different handwriting, image quality, page rotation, page ordering and document attachments were the major challenges encountered.

### Paediatric X-Ray Disease Diagnosis

- Convolutional neural networks for disease diagnosis of paediatric patient x-rays. Co-supervised two master's students at the University of San Francisco (2017/2018).

### Precision Medicine Oncology

- Denoising autoencoders for biomarker prediction in breast cancer gene expression data. Co-supervised two master's students at the University of San Francisco (2016/2017).

### Audio Recognition

- Developed custom audio fingerprinting hashing algorithm for radio advert tracking.

## HONORS & AWARDS

- MIT Press poster award, Deep Learning Indaba (2019)
- Nedbank Masters Scholarship (2018)
- Most Innovative Honours Project Award (2016)
- Represented University of the Witwatersrand at the SAIEE national student project competition (2016)
- Entelect award for best Software Development II project (2015)
- Dean's list (2013, 2014)