

James Urquhart Allingham – Curriculum Vitae

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EDUCATION

PhD in Information Engineering

University of Cambridge
Started October 2019
Supervisor: Dr. José Miguel Hernández-Lobato

MPhil in Advanced Computer Science

University of Cambridge
Graduated with distinction July 2018
Thesis: Unsupervised automatic dataset repair
Supervisors: Prof. Zoubin Ghahramani & Dr. Christian Steinruecken
jamesallingham.com/pdf/james_allingham_dissertation.pdf

Bachelor of Science in Electrical (Information) Engineering

University of the Witwatersrand
Graduated with distinction December 2016

PUBLICATIONS

Erik Daxberger, Eric Nalisnick*, James Urquhart Allingham*, Javier Antorán*, and José Miguel Hernández-Lobato. **Expressive yet Tractable Bayesian Deep Learning via Subnetwork Inference**. AABI (2021).
arxiv.org/abs/2010.14689

Javier Antorán*, James Urquhart Allingham*, and José Miguel Hernández-Lobato. **Depth Uncertainty in Neural Networks**. NeurIPS (2020).
arxiv.org/abs/2006.08437

Javier Antorán*, James Urquhart Allingham*, and José Miguel Hernández-Lobato. **Variational Depth Search in ResNets**. NAS Workshop at ICLR (2020).
arxiv.org/abs/2002.02797

EXPERIENCE

Wolfram Research

Aug 2018 – Oct 2019

Developer for the Wolfram Language (Mathematica) deep learning framework. This included adding new layers, adding high level features such as early stopping, revamping the training metrics functionality, and implementing the ONNX back-end (with some open source contributions to the ONNX codebase).

reference.wolfram.com/language/ref/TrainingStoppingCriterion.html
reference.wolfram.com/language/ref/TrainingProgressMeasurements.html
reference.wolfram.com/language/ref/format/ONNX.html

Deep Learning Indaba

Sep 2017, Sep 2018 & Mar 2019 – Sep 2019

Beta-tested and tutored the practical sessions in 2017. Head tutor in 2018. Lead the development of the practicals in 2019.

github.com/deep-learning-indaba/indaba-pracs-2019

Depth First Learning

Nov 2018 – May 2019

Developed a Depth First Learning curriculum, covering the Wasserstein GAN.
depthfirstlearning.com/2019/WassersteinGAN

*Equal contribution

Deep Learning IndabaX South Africa Oct 2018 – Apr 2019
Part of the organising committee for the IndabaX South Africa. Responsible for the website, hackathon and application process among other things.
indabax.co.za/2019/index.html

Isazi Consulting Dec 2015 – Sep 2017
Worked on various machine learning and data science projects involving extensive use of the R, Python and C++ languages as well as tools including SQL and AWS.

ISC Student Cluster Competition Jul 2015
Placed second in the 2015 ISC SCC, with the team from the Centre for High Performance Computing, representing South Africa. This competition centred around knowledge of HPC, computer architecture and Linux.

TALKS

Convolutional Models 26 Aug 2019
Deep Learning Indaba, Kenyatta University, Nairobi, Kenya
youtube.com/watch?v=ocifixzU14A

A Primer on Missing Data 16 Apr 2019
IndabaX ZA, University of Kwazulu-Natal, Durban, South Africa
youtube.com/watch?v=0zsh5yi9if4

SKILLS

Working knowledge: Python (including NumPy, SciPy, Matplotlib, Pandas & Jupyter), C++, R, Mathematica, PyTorch, TensorFlow, Linux, Git, L^AT_EX

Basic knowledge: Julia, Haskell, OCaml, Go, Matlab, MIPS Assembly, Electronics, VHDL

AWARDS & HONOURS

ELLIS PhD Studentship Jan 2021
Accepted into the European Laboratory for Learning and Intelligent Systems PhD program.

Michael E. Fisher Studentship in Machine Learning Sep 2019
Awarded a full scholarship for a PhD in Machine Learning at Cambridge

Skye Cambridge Scholarship Jun 2017
Awarded a full scholarship to read an MPhil in ACS at Cambridge

Deist-Sefor Prize Dec 2016
For outstanding academic ability throughout my undergraduate degree

Entelect Prize
Best fourth year student in the information engineering

Siemens Ltd Prize
Best final year project report

CBI Electric Prize May 2015
Best second year student in the electrical and information engineering

Actom Prize May 2014
Best first year student in the EIE faculty

University of the Witwatersrand Dean's List 2014, 2015, 2016