Education

PhD Computer Science

University of Edinburgh, 2018-2021

- Studying efficient representation structures and optimisations under the supervision of Professor Michael O'Boyle and Professor Amos Storkey.
- Organising committee member for 1st Workshop on Emerging Deep Learning Accelerators at HiPEAC 2019. Reviewer for Neural Architects (workshop at ICCV '19), BMVC '19.
- Open source paper replications, tutorials on Gaussian Processes, Python programming.

MSc Computer Science (Distinction)

University of Edinburgh, 2017-2018

- Taught modules on Machine Learning and Parallel Architectures with a project on accelerating training speeds for neural machine translation models.
- Thesis on hardware adaptive deep learning for embedded GPUs. Replicated deep learning papers in Python and C++ using PyTorch and Tensorflow.

BSc Computer Science (1st class)

University of Birmingham, 2014-2017

- Specialized in machine learning and compilers. Final year courses on statistics, linear algebra and data analysis with project on using neural networks for enhancing stochastic process models.

Technical Skills

Languages: C, C++, Python, OCaml, Bash, CUDA, OpenCL.

Other: Deep Learning, PyTorch, Optimising Compilers, Linear Algebra.

Experience

Data Science Intern

Lattice Training, 2017

Summer internship analysing athlete profiles and using machine learning to predict and develop areas of weakness in rock climbers.

Technology & Data Summer Analyst

Morgan Stanley, 2016

Ten week internship in the Technology & Data group at Morgan Stanley. Worked as a full stack engineer building tools for investigating internal dataflow with Scala.

Campus Ambassador

Morgan Stanley, 2015

Voted Campus Ambassador of the Year after promoting Morgan Stanley at university events and careers fairs to fellow students.

Publications

Deep Kernel Transfer in Gaussian Processes for Few-shot Learning. M. Patacchiola, <u>J. Turner</u>, E. Crowley, A. Storkey. *Currently under submission*.

BlockSwap: Fisher-guided Block Substitution for Network Compression. <u>J. Turner,</u> E. Crowley, A. Storkey, M. O'Boyle. *Currently under submission*.

Distilling with Performance Enhanced Students. <u>J. Turner</u>, E. Crowley, A. Storkey, M. O'Boyle. *ARM Research Summit, 2019*.

A Closer Look at Structured Pruning for Neural Network Compression. E. Crowley, J. Turner, A. Storkey, M. O'Boyle. *NeurIPS Workshop on Compact Deep Neural Networks, 2018.*

Characterising Cross-Layer Optimisations for Deep Convolutional Neural Networks. J. Turner, J. Cano, V. Radu, E. Crowley, A. Storkey, M. O'Boyle. *IEEE International Symposium on Workload Characterisation, 2018.*