Jack Turner

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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. Pattachiolo, J. Turner, E. Crowley, A. Storkey. *Currently under submission.*

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

Distilling with Performance Enhanced Students. J. Turner, 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.*