JACK TURNER

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Education

PhD Computer Science, University of Edinburgh. 2018-current.

- Studying acceleration methods for deep learning under the supervision of Michael O'Boyle as a member of the BayesWatch machine learning group.
- Organising committee member for 1st Workshop on Emerging Deep Learning Accelerators at HiPEAC 2019.

MSc (by Research) Computer Science, University of Edinburgh. Distinction.

- Taught modules on Machine Learning and Parallel Architectures with a project on improving convergence speed of neural machine translation systems.
- Thesis on hardware adaptive deep learning for embedded GPUs. Replicated deep learning papers in Python and C++ using PyTorch and Tensorflow.
- Published paper in IISWC 2018.

BSc Computer Science, University of Birmingham. 1st class (hons).

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

Technical Skills

Programming Languages: C/C++, Python, Haskell, Java, Scala, SQL.

Other: Computer Architecture, Deep Learning, PyTorch, Tensorflow, Compilers, Linear Algebra.

Employment

Data Science Intern - June 2017

Lattice Training

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

Technology and Data Summer Analyst — June to August 2016 Morgan Stanley

Ten week internship in the London office in the Technology & Data group. Worked as a full stack engineer building tools for investigating internal data flow with Scala and C#.

Publications

HAKD: Hardware Aware Knowledge Distillation. <u>J. Turner</u>, E. Crowley, A. Storkey, M. O'Boyle. arXiv preprint, 2018.

Pruning neural networks: is it time to nip it in the bud? E. Crowley, <u>J. Turner</u>, A. Storkey, M. O'Boyle. NIPS 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.