

Gordon E. Moon

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EDUCATION

The Ohio State University

Ph.D. in Computer Science & Engineering

Thesis: "Parallel Algorithms for Machine Learning"

Advisor: Professor Ponnuswamy Sadayappan

Columbus, OH

2013–2019

Indiana University

M.S. in Computer Science

Bloomington, IN

2011–2013

Yonsei University

B.S. in Computer Science & Industrial System Engineering

Seoul, Korea

2004–2011

RESEARCH INTERESTS

Deep Learning, High-Performance Computing, and Deep Learning Accelerators

EXPERIENCE

Sandia National Laboratories

Postdoctoral Researcher

Research area: Co-design of Artificial Intelligence-focused Architectures and Algorithms, Scalable Layer-Parallel Deep Neural Network Training

Albuquerque, NM

October 2019–present

The Ohio State University

Instructor

- Computer Programming In Java

- Introduction to Computing Technology

Columbus, OH

2014–2018

Graduate Teaching Assistant

- Survey of Artificial Intelligence II: Advanced Techniques

- Principles of Programming Languages

2018–2019

Indiana University

Graduate Teaching Assistant

- Elements of Artificial Intelligence

Bloomington, IN

2012

PUBLICATIONS

Gordon E. Moon, J. Austin Ellis, A. Sukumaran-Rajam, S. Parthasarathy and P. Sadayappan, "ALO-NMF: Accelerated Locality-Optimized Non-negative Matrix Factorization," *To Appear in Proceedings of the 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining 2020 (KDD '20)*, research track, **accepted**, **acceptance rate: ~16.8%**, 2020

Gordon E. Moon, D. Newman-Griffis, J. Kim, A. Sukumaran-Rajam, E. Fosler-Lussier and P. Sadayappan, "Parallel Data-Local Training for Optimizing Word2Vec Embeddings for Word and Graph Embeddings," *Proceedings of the IEEE/ACM 5th International Workshop on Machine Learning in High Performance Computing Environments (MLHPC)*, held in conjunction with *International Conference for High Performance Computing, Networking, Storage, and Analysis (SC '19)*, 2019

Gordon E. Moon, I. Nisa, A. Sukumaran-Rajam, B. Bandyopadhyay, S. Parthasarathy and P. Sadayappan, "Parallel Latent Dirichlet Allocation on GPUs," *Proceedings of the 2018 International Conference on Computational Science (ICCS)*, 2018

Gordon E. Moon, A. Sukumaran-Rajam, and P. Sadayappan, "Parallel LDA with Over-Decomposition," *Proceedings of the 2017 IEEE 24th International Conference on High Performance Computing Workshops (HiPCW)*, 2017

Gordon E. Moon, and J. Hamm, "A Large-Scale Study in Predictability of Daily Activities and Places," *Proceedings of the 8th EAI International Conference on Mobile Computing, Applications and Services (MobiCASE)*, 2016

PAPERS UNDER REVIEW

Gordon E. Moon, H. Kwon, G. Jeong, P. Chatarasi, S. Rajamanickam and T. Krishna, "Exploring the Mapping Space of Dataflow Accelerators for Linear Algebra Kernels," Status: Under review at a conference

PROFESSIONAL SERVICE

Program Committee Member

- *Tenth International Workshop on Accelerating Analytics and Data Management Systems Using Modern Processor and Storage Architectures (ADMS 2019)*, August 2019

CERTIFICATION/SKILLS

- Proficient in parallel programming using OpenMP, MPI, CUDA, etc.
- Proficient in deep learning frameworks such as TensorFlow, PyTorch, Theano, Caffe, etc.
- Programming Languages Proficiency: C/C++, Java, Python, MATLAB, R, and MySQL

Miscellaneous: U.S. citizenship