Gordon E. Moon

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EDUCATION

The Ohio State University **Columbus, OH**
Ph.D. in Computer Science & Engineering *2013–2019*
Thesis: "Parallel Algorithms for Machine Learning"
Advisor: Professor Ponnuswamy Sadayappan

Indiana University **Bloomington, IN**
M.S. in Computer Science *2011–2013*

Yonsei University **Seoul, Korea**
B.S. in Computer Science & Industrial System Engineering *2004–2011*

EXPERIENCE

Sandia National Laboratories **Albuquerque, NM**
Postdoctoral Researcher *October 2019–present*
Research area: Co-design of Artificial Intelligence-focused Architectures and Algorithms, Scalable Layer-Parallel Deep Neural Network Training

The Ohio State University **Columbus, OH**
Instructor *2014–2018*
- Computer Programming In Java
- Introduction to Computing Technology

Graduate Teaching Assistant *2018–2019*
- Survey of Artificial Intelligence II: Advanced Techniques
- Principles of Programming Languages

Indiana University **Bloomington, IN**
Graduate Teaching Assistant *2012*
- Elements of Artificial Intelligence

RESEARCH INTERESTS

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

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 (KDD'20), 2020 (acceptance rate: 216/1279 $\approx$ 16.9%, research track, oral presentation)

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'19), *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'18), 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'17), 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'16), 2016

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