Gordon Euhyun Moon

Sandia National Laboratories
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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*

RESEARCH INTERESTS

High-Performance Computing, Machine Learning, Deep Learning, Natural Language Processing, Graph Mining

EXPERIENCE

Sandia National Laboratories **Albuquerque, NM**
Postdoctoral Researcher *October 2019–present*
Research area: Co-design of artificial intelligence-focused architecture and algorithms, Layer-parallel training for deep neural networks

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

PUBLICATIONS

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,"
To Appear in Proceedings of the 5th Workshop on Machine Learning in High-Performance Computing Environments (MLHPC), held in conjunction with International Conference for High Performance Computing, Networking, Storage, and Analysis (SC19), 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, A. Sukumaran-Rajam, S. Parthasarathy and P. Sadayappan, "PL-NMF: Parallel Locality-optimized Non-negative Matrix Factorization,"
arXiv preprint arXiv:1904.07935, 2019
Status: Under second round of revision at a journal

INVITED TALKS

Gordon E. Moon, "Accelerated Computing for Machine Learning", Sandia National Laboratories, Albuquerque, NM, August, 2019

Gordon E. Moon, "Accelerated Computing for Machine Learning", Oak Ridge National Laboratory, Oak Ridge, TN, August, 2019

Gordon E. Moon, "Accelerated Computing for Machine Learning", AMD Research, Santa Clara, CA, July, 2019

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

AWARDS/HONORS

Fall 2011–Spring 2012: Graduate Fellowship, Indiana University

Spring 2007: Dean's Innovation Award, Ecology-Friendly Devices for Comestibles Waste Treatment and Recycling, Yonsei University

EXTRACURRICULAR ACTIVITIES

December 2008–June 2009: Chief of Squadron, Transportation Battalion, Sixth Army Corps Headquarters, Pochun, near DMZ towards Border to North Korea, South Korea

VOLUNTEERING SERVICES

June 2010: Dispatched to Siem Riep, Cambodia for Delivery of Medical Supplies under Auspices of Kyungdong Presbyterian Church

January 2010–February 2010: Dispatched to Ho Chi Minh, Vietnam for Medical Curative Treatment under Auspices of Kyungdong Presbyterian Church

CERTIFICATION/SKILLS

Topmost-Grade Information Processing Technician Authorized by Ministry of IT, Government of Republic of Korea

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

REFERENCES

Ponnuswamy Sadayappan
Professor
School of Computing
University of Utah
50 S. Central Campus Drive MEB 3458
Salt Lake City, UT 84112
saday@cs.utah.edu

Srinivasan Parthasarathy
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