

Gangwon Jo

Room 515, Building 301
Seoul National University
Seoul 08826, Korea
gangwon@aces.snu.ac.kr
<http://gw.pe.kr/>

- Education**
- Ph.D. Candidate** March 2010 – present
Department of Computer Science and Engineering
Seoul National University, Seoul, Korea
Advisor: Prof. Jaejin Lee
- B.S. in Computer Science and Engineering** March 2006 – February 2010
Seoul National University, Seoul, Korea
Summa cum laude (GPA: 4.07/4.3)
- Work and Research Experiences**
- Chief Technology Officer** August 2016 – present
ManyCoreSoft Co., Ltd., Seoul, Korea
- Research Assistant** March 2010 – July 2016
Center for Manycore Programming, Seoul National University
- Teaching Experiences**
- Teaching Assistant** March 2017 – June 2017
SNU 4190.103A Programming Practice (Spring 2017)
- Lecturer**
- 2017 Accelerator Programming Winter School February 2017
2016 National Supercomputing Summer School @ SNU August 2016
2016 National Supercomputing Winter School @ SNU February 2016
2015 National Supercomputing Summer School @ SNU August 2015
- Lecturer** June 2014 – September 2014
Multicore Programming Expert Course, Employment-Linked R&D Training Center
- Teaching Assistant** March 2010 – June 2014
SNU 4190.414A Multicore Computing (Spring 2014)
SNU 4190.414A Multicore Computing (Spring 2013)
SNU 4190.409 Compilers (Spring 2012)
SNU 010.133 Digital System Concept and Practice (Spring 2011)
SNU 010.133 Digital System Concept and Practice (Spring 2010)
- Professional Activities**
- Artifact Evaluation Committee** November 2016 – December 2016
PPoPP-CGO 2017
- Publications**
- Gangwon Jo**, Jaehoon Jung, Jiyoung Park, and Jaejin Lee. MAPA: An Automatic Memory Access Pattern Analyzer for GPU Applications, Poster presentation in *PPoPP '17: Proceedings of the 22nd ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming*, pp. 443–444, Austin, Texas, USA, February 2017.
 - Jungho Park, Wookeun Jung, **Gangwon Jo**, Ilkoo Lee, and Jaejin Lee. PIPSEA: A Practical IPsec Gateway on Embedded APUs, *CCS '16: Proceedings of the*

- 2016 ACM SIGSAC Conference on Computer and Communications Security, pp. 1255–1267, Vienna, Austria, October 2016.
3. Jaejin Lee, **Gangwon Jo**, Wookeun Jung, Hongjune Kim, Junghyun Kim, Yong-Jun Lee, and Jungho Park. SnuCL: A unified OpenCL framework for heterogeneous clusters, *Advances in GPU Research and Practice*, pp. 23–56, Morgan Kaufmann, September 2016.
 4. Junghyun Kim, **Gangwon Jo**, Jaehoon Jung, Jungwon Kim, and Jaejin Lee. A Distributed OpenCL Framework using Redundant Computation and Data Replication, *PLDI '16: Proceedings of the 37th Annual ACM SIGPLAN Conference on Programming Language Design and Implementation*, pp. 553–569, Santa Barbara, California, USA, June 2016.
 5. **Gangwon Jo**, Jeongho Nah, Jun Lee, Jungwon Kim, and Jaejin Lee. Accelerating LINPACK with MPI-OpenCL on Clusters of Multi-GPU Nodes, *IEEE Transactions on Parallel and Distributed Systems*, vol. 26, no. 7, pp. 1814–1825, July 2015.
 6. **Gangwon Jo**, Won Jong Jeon, Wookeun Jung, Gordon Taft, and Jaejin Lee. OpenCL Framework for ARM Processors with NEON Support, *WPMVP '14: Proceedings of the 2014 Workshop on Programming Models for SIMD/Vector Processing*, pp. 33–40, Orlando, Florida, USA, February 2014.
 7. Sangmin Seo, Jun Lee, **Gangwon Jo**, and Jaejin Lee. Automatic OpenCL Work-Group Size Selection for Multicore CPUs, *PACT '13: Proceedings of the 22nd International Conference on Parallel Architectures and Compilation Techniques*, pp. 387–397, Edinburgh, Scotland (UK), September 2013.
 8. Jungwon Kim, Sangmin Seo, Jun Lee, Jeongho Nah, **Gangwon Jo**, and Jaejin Lee. SnuCL: an OpenCL Framework for Heterogeneous CPU/GPU Clusters, *ICS '12: Proceedings of the 26th ACM International Conference on Supercomputing*, pp. 341–352, San Servolo Island, Venice, Italy, June 2012.
 9. Jungwon Kim, Sangmin Seo, Jun Lee, Jeongho Nah, **Gangwon Jo**, and Jaejin Lee. OpenCL as a Unified Programming Model for Heterogeneous CPU/GPU Clusters, Poster presentation in *PPoPP '12: Proceedings of the 17th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming*, pp. 299–300, New Orleans, Louisiana, USA, February 2012.
 10. Sangmin Seo, **Gangwon Jo**, and Jaejin Lee. Performance Characterization of the NAS Parallel Benchmarks in OpenCL, *IISWC '11: Proceedings of the 2011 IEEE International Symposium on Workload Characterization*, pp. 137–148, Austin, Texas, USA, November 2011.
 11. Jungwon Kim, Sangmin Seo, Jun Lee, Jeongho Nah, **Gangwon Jo**, and Jaejin Lee. OpenCL as a Programming Model for GPU Clusters, *LCPC '11: Proceedings of the 24th International Workshop on Languages and Compilers for Parallel Computing*, pp. 76–90, Fort Collins, Colorado, USA, September 2011.

Honors and Awards

Graduate Student Fellowship

Korea Foundation for Advanced Studies

August 2010 – February 2015

19th Place

2010 ACM-ICPC World Finals, Harbin, China

February 2010

14th Place

2007 ACM-ICPC World Finals, Tokyo, Japan

March 2007

Presidential Science Scholarship
Korea Science and Engineering Foundation

March 2006 – February 2010

Silver Medal
17th International Olympiad in Informatics. Nowy Sącz, Poland

August 2005