DONG CHEN

Assistant Professor in National University of Defense Technology, Changsha, China
jameschennerd@gmail.com

EDUCATION

University of Rochester, USA *September 2014 - May 2019*
Ph.D
Department of Computer Science

National University of Defense Technology, China *July 2007 - December 2013*
Bachelor/Master of Engineering
Department of Computer Science

RESEARCH INTERESTS

My current research focuses on static and dynamic program analysis on locality for both sequential and parallel programs. I have broad interests on system software, parallel computing, memory management and program synthesis.

PUBLICATIONS

Chen Ding, **Dong Chen**, Dorin Patru. "CLAM: Compiler Leasing of Accelerator Memory". 32nd Workshop on Languages and Compilers for Parallel Computing (LCPC'19)

Dong Chen, Fangzhou Liu, Mingyang Jiao, Chen Ding, Sreepathi Pai. "Statistical Caching for Near Memory Management". 5th International Symposium on Memory Systems (MEMSYS'19)

Dong Chen, Fangzhou Liu, Chen Ding, Sreepathi Pai. "Locality analysis through static parallel sampling". 39th ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI'18)

Dong Chen, Chunling Hu, Chucheow Lim, Sreepathi Pai, Chen Ding. "POSTER: Static Sapmling for GPU Code". 31th International Workshop on Languages and Compilers for Parallel Computing (LCPC'18)

Dong Chen, Fangzhou Liu, Chen Ding, Chucheow Lim. "POSTER: Static Reuse Time Analysis Using Dependence Distance". 30th International Workshop on Languages and Compilers for Parallel Computing (LCPC'17)

Chencheng Ye, Chen Ding, Hao Luo, Jacob Brock, **Dong Chen**, Hai Jin. "Cache Exclusivity and Sharing: Theory and Optimization". ACM Transactions on Architecture and Code Optimization (TACO'17)

Pengcheng Li, Xiaoyu Hu, **Dong Chen**, Jacob Brock, Hao Luo, Eddy Z Zhang, Chen Ding. "LD: Low-Overhead GPU Race Detection Without Access Monitoring". ACM Transactions on Architecture and Code Optimization (TACO'17)

Dong Chen, Chencheng Ye, Chen Ding. "Write Locality and Optimization for Persistent Memory". 2nd International Symposium on Memory Systems (MEMSYS'16)

Mei Wen, Da-fei Huang, Chang-qing Xun, **Dong Chen**. "Improving performance portability for GPU-specific OpenCL kernels on multi-core/many-core CPUs by analysis-based transformations". Frontiers of Information Technology and Electronic Engineering (JZUS'15)

Dafei Huang, Mei Wen, Changqing Xun, **Dong Chen**, Xing Cai, Yuran Qiao, Nan Wu, Chunyuan Zhang. "Automated Transformation of GPU-Specific OpenCL Kernels Targeting Performance Portability on Multi-Core/Many-Core CPUs". 20th International European Conference on Parallel and Distributed Computing (Euro-Par'14)

Changqing Xun, **Dong Chen**, Qiang Lan, Chunyuan Zhang. "Efficicent fine grained shared buffer management for multiple OpenCL devices". Journal of Zhejiang University-SCIENCE C: Computers and Electronics (JZUS'13)

Dong Chen, Changqing Xun, Dafei Huang, Mei Wen, Chunyuan Zhang. "Automatic mapping single-device OpenCL program to heterogeneous multi-device platform". The 15th International Conference on High Performance Computing and Communications (HPCC'13)

Dong Chen, Huayou Su, Wen Mei, Lixuan Wang, Chunyuan Zhang. "Scalable Parallel Motion Estimation on Multi-GPU system". International Conference on Communications and Information Processing (ICCIP'13)

INTERNSHIP EXPERIENCES

FutureWei Technologies, HUAWEI US Research Lab *Jun.2015-Aug.2015*
Work on memory allocator in Android runtime in Compiler Group, Software Lab

Qualcomm *Jun.2016-Aug.2016*
Work on OpenCL performance model in Graphics Compiler Team

Qualcomm *Jun.2018-Aug.2018*
Work on static locality analysis for GPU code in Graphics Compiler Team

OTHER EXPERIENCES

Professional Services: Sub-reviewer for MEMSYS 2019, ICS 2019, LCPC 2018, ICS 2017, MEMSYS 2017, NPC 2017.

Teaching Assistant: Data Structure, Programming Language Design and Implementation, Software Analysis and Improvement (Advanced Compiler).

SKILLS

Languages	Chinese(native), English(fluent), Japanese(little)
Programming	C++, Python, LLVM, Clang, C, CUDA, OpenCL, OpenMP, Pthread, MPI, Coq, Lisp, Verilog, Latex