

Hui Zhao

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Professional Preparation:

Harbin Institute of Technology, China Computer Science B.S., 1995
Northeastern University, Massachusetts, Electrical and Computer Engineering, M.S.E.E., 2000
Pennsylvania State University, Pennsylvania Computer Engineering, Ph.D., 2014

Appointments:

September 2016 – present Assistant Professor, Department of Computer Science and Engineering, University of North Texas, Denton, Texas
2015-2016 Computer Scientist, National Institute of Technology (NIST), Gaithersburg, MD
2000-2008 Hardware Engineer, Teradyne Inc, Boston, MA

Five Most Related Products:

1. Yuwen Cui, Shakthi Prabhakar, Hui Zhao, Saraju Mohanty, Juan Fang, “A Low-cost Conflict-free NoC Architecture for Heterogeneous Multicore Systems”, *ISVLSI* 2020.
2. Xianwei Cheng, Hui Zhao, Mahmut Kandemir, Saraju Mohanty, Beilei Jiang, “Alleviating Bottlenecks for DNN Execution on GPUs via Opportunistic Computing”, *ISQED* 2020 (**Best Paper Award**).
3. Xianwei Cheng, Hui Zhao, Mahmut Kandemir, Beilei Jiang, Gayatri Mehta, “AMOEBAs: A Coarse Grained Reconfigurable Architecture for Dynamic GPU Scaling”, *International Conference on Supercomputing (ICS)*, 2020.
4. Xianwei Cheng, Yang Zhao, Hui Zhao, Yuan Xie, “Packet Pump: Overcoming Network Bottleneck in On-Chip Interconnects for GPGPUs”, in *Proceedings of ACM Design Automation Conference (DAC)*, 2018.
5. Xianwei Cheng, Yang Zhao, Mohammadreza Robaei, Beilei Jiang, Hui Zhao, Juan Fang, “A Low-Cost and Energy-Efficient NoC Architecture for GPGPUs”. *ACM/IEEE ANCS* 2019.

Five Other Related Products:

1. Xulong Tang, Mahmut Taylan Kandemir, Hui Zhao, Myoungsoo Jung, and Mustafa Karakoy, “Computing with Near Data”, *SIGMETRICS* 2019.
2. Mohammadreza Robaei, Hui Zhao, “Broadcast-Based Hybrid Wired-Wireless NoC for Efficient Data Transfer in GPU of CE Systems”, *IEEE Consumer Electronics Magazine*, Nov, 2019, volume 8, issue 6, 2019.
3. Hui Zhao, Oyang Jang, Wei Ding, Yuanrui Zhang, Mahmut Kandemir, Mary Jane Irwin, “A Hybrid NoC Design for Cache Coherence Optimization for Chip Multiprocessors”, *DAC*, 2012.
4. Mahmut Kandemir, Hui Zhao, Xulong Tang, Mustafa Karakoy, “Memory Row Reuse Distance and its Role in Optimizing Application Performance”, in *Proceedings of ACM International Conference on Measurement and Modeling of Computer Science (SIGMETRICS)*, 2015.
5. Joshua Booth, Jagadish Kotra, Hui Zhao, Mahmut Kandemir, Padma Raghavan and Tarek Abdelzaher, “Phase Detection with Hidden Markov Models for DVFS on Many-Core Processors”, in *Proceedings of IEEE International Conference on Distributed Computing Systems (ICDCS)*, 2015.

Synergistic Activities:

- Research mentor to (>10) undergraduate and graduate students as well as three high school students in the Texas Academy of Math and Science in the LARC laboratory of UNT CSE department
- Developed and taught two graduate level courses on Network-on-Chips at UNT (2016- present)
- Served as TPC for ICCAD, DATE, IEEE Cloud Summit
- Served as Judge for student design competition of conference of ICCE 2019
- Served as session chair for ISVLSI special sessions (2018)