

Wenxue Cheng

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Position

Ph.D. Candidate, Department of Computer Science and Technology, Tsinghua University

Research

I am broadly interested in network systems and performance modeling. My research aims to improve system performance via analytical tools and prototype designs. My recent work is focusing on Memcached, RDMA-based applications, and Datacenter congestion control.

Education

Since 2014, Ph.D. Student in Computer Science and Technology, Tsinghua University

2010-2014, B.E. Student in Computer Science and Technology, Tsinghua University

2011-2014, Second B.E. Student in Mathematics and Applied Mathematics, Tsinghua University

Selected Honors

2017, TP-link scholarship, Tsinghua University

2014, Excellent Graduation Thesis of undergraduates, Tsinghua University

2013, National Encouragement scholarship, Tsinghua University

2012, National Encouragement scholarship, Tsinghua University

2011, Friends of the Tsinghua -- OOCL Scholarship, Tsinghua University

Publications

- [1] **Wenxue Cheng**, Wanchun Jiang, Fengyuan Ren, Tong Zhang, Bo Wang, Kun Qian. "Congestion Control in Converged Ethernet with Heterogeneous and Time-Varying Delays", in Proceedings of IEEE/ACM IWQoS, Vilanova i la Geltrú, Barcelona, Spain, June 14-16, 2017
- [2] **Wenxue Cheng**, Fengyuan Ren, Wanchun Jiang, Tong Zhang. "Modeling and Analyzing Latency in the Memcached system", in Proceedings of IEEE ICDCS, Atlanta, GA, USA, June 5-8, 2017.
- [3] **Wenxue Cheng**, Wanchun Jiang, Fengyuan Ren, Kun Qian, Tong Zhang. "Isolating Mice and Elephant in Data Centers." arXiv preprint arXiv:1605.07732 (2016).
- [4] Xuesong Li, **Wenxue Cheng**, Tong Zhang, Jing Xie, Fengyuan Ren, Bailong Yang. "Power Efficient High Performance Packet I/O", in Proceedings of IEEE ICPP, Eugene, Oregon, USA, August 13-16, 2018
- [5] Jing Xie, **Wenxue Cheng**, Tong Zhang, Danfeng Shan, Fengyuan Ren. "Estimating Short Connection Capacity on High Performance User Level Network Stack", in Proceedings of IEEE ICCCN, Hangzhou, China, July 30-August 2, 2018
- [6] Mao Miao, Fengyuan Ren, Jing Xie, Xiaohui Luo, Qingkai Meng, and **Wenxue Cheng**. "SoftRDMA: Rekindling High Performance Software RDMA over Commodity Ethernet", in Proceedings of APNet, Hong Kong, China, August, 2017
- [7] Mao Miao, Xiaohui Luo, Fengyuan Ren, **Wenxue Cheng**, Jing Xie, Wenzhuo Li, and Xiaolan Liu. "Renovate High Performance User-level Stacks' Innovation Utilizing Commodity Network Adaptors" in Proceedings of ISCC, Heraklion, Crete, Greece, July, 2017.
- [8] Kun Qian, Fengyuan Ren, Danfeng Shan, **Wenxue Cheng**, Bo Wang. "XpressEth: Concise and Efficient Converged Real-Time Ethernet", in Proceedings of IEEE/ACM IWQoS, Vilanova i la Geltrú, Barcelona, Spain, June 14-16, 2017

- [9] Tong Zhang, Fengyuan Ren, Peng Cheng, **Wenxue Cheng**, Bo Wang. "Performance Analysis of Randomized Data Fetching in Cluster Computing", in Proceedings of IEEE/ACM IWQoS, Vilanova i la Geltrú, Barcelona, Spain, June 14-16, 2017
- [10] Tong Zhang, Fengyuan Ren, **Wenxue Cheng**, Xiaohui Luo, Ran Shu, Xiaolan Liu. "Modeling and Analyzing the Influence of Chunk Size Variation on Bitrate Adaptation in DASH", in Proceedings of IEEE INFOCOM, Atlanta, GA, USA, May 1-4, 2017.
- [11] Mao Miao, **Wenxue Cheng**, Fengyuan Ren, Jing Xie. "Smart Batching: a Load-sensitive Self-tuning Packet I/O Using Dynamic Batch Sizing", in Proceedings of IEEE HPCC, Sydney, Australia, December 12-14, 2016
- [12] Jing Xie, Mao Miao, Fengyuan Ren, **Wenxue Cheng**, Ran Shu, Tong Zhang. "Overload Detecting in High Performance Network I/O Frameworks", in Proceedings of IEEE HPCC, Sydney, Australia, December 12-14, 2016