

Education

- 2016–2019 **Ph.D., Computer Science**, *The University of Texas at Arlington*, TX, USA, 4.0/4.0.
Advisor: Professor Jia Rao.
Thesis: Characterizing and Optimizing Virtualized Network Performance in the Cloud
- 2013–2016 **Ph.D., Computer Science**, *University of Colorado, Colorado Springs*, CO, USA, 4.0/4.0. Transferred to UT Arlington with advisor Professor Jia Rao in 2016 .
- 2012–2013 **Research student, Computer Science**, *Kyoto University*, Japan.
- 2008–2012 **B.S., Software Engineering**, *Nanjing University*, China, 4.3/5.0.

Research Interests

Operating Systems, Computer Networks, Cloud Computing, Big Data, Network Function Virtualization, Cyber Physical Systems, Data and Program Analysis, Parallel and Distributed Systems

Publications

- HPDC 19 Hang Huang, Jia Rao, Song Wu, Hai Jin, **Kun Suo**, Xiaofeng Wu, *Adaptive Resource Views for Containers*, in Proceedings of the ACM International Symposium on High-Performance Parallel and Distributed Computing, Phoenix, Arizona, 2019.
- HPDC 19 Yong Zhao, **Kun Suo**, Xiaofeng Wu, Jia Rao, Song Wu, Hai Jin, *Preemptive Multi-Queue Fair Queuing*, in Proceedings of the ACM International Symposium on High-Performance Parallel and Distributed Computing, Phoenix, Arizona, 2019.
- GPC 19 Lin Gu, Junjian Guan, Song Wu, Hai Jin, Jia Rao, **Kun Suo**, Deze Zeng, *CNTC: A Container Aware Network Traffic Control Framework*, in Proceedings of the 14th International Conference on Green, Pervasive and Cloud Computing, Uberlandia, Brazil, 2019.
- ICDCS 18 **Kun Suo**, Yong Zhao, Wei Chen, Jia Rao, *vNetTracer: Efficient and Programmable Packet Tracing in Virtualized Networks*, in Proceedings of the IEEE International Conference on Distributed Computing Systems, Vienna, Austria, 2018.
- HotCloud 18 Xiaofeng Wu, **Kun Suo**, Yong Zhao, Jia Rao, *A Side-channel Attack on HotSpot Heap Management*, in Proceedings of 10th USENIX Workshop on Hot Topics in Cloud Computing, Boston, MA, 2018.
- EuroSys 18 **Kun Suo**, Jia Rao, Hong Jiang, Witawas Srisa-an, *Characterizing and Optimizing Hotspot Parallel Garbage Collection on Multicore Systems*, in Proceedings of the European Conference on Computer Systems, Porto, Portugal, 2018.

- INFOCOM 18 **Kun Suo**, Yong Zhao, Wei Chen, Jia Rao, *An Analysis and Empirical Study of Container Networks*, in Proceedings of IEEE International Conference on Computer Communications, Honolulu, 2018, 2018.
- INFOCOM 18 **Kun Suo**, Jia Rao, Hong Jiang, Witawas Srisa-an, *Efficient and Flexible Packet Tracing for Virtualized Networks using eBPF*, in Proceedings of IEEE International Conference on Computer Communications, Honolulu, 2018.
- Middleware 17 Yong Zhao, **Kun Suo**, Luwei Cheng, Jia Rao, *Scheduler Activations for Interference-Resilient SMP Virtual Machine Scheduling*, in Proceedings of ACM/IFIP/USENIX Middleware conference, Las Vegas, 2017.
- SoCC 17 **Kun Suo**, Yong Zhao, Jia Rao, Luwei Cheng, Xiaobo Zhou, Francis C.M. Lau, *Preserving I/O Prioritization in Virtualized OSes (Best Poster Award)*, in Proceedings of ACM Symposium on Cloud Computing, Santa Clara, 2017.
- APSys 16 **Kun Suo**, Jia Rao, Luwei Cheng, Francis C.M. Lau, *Time Capsule: Tracing Packet Latency across Different Layers in Virtualized Systems (Best Paper Award)*, in Proceedings of ACM SIGOPS Asia-Pacific Workshop on Systems, Hong Kong, 2016.
- ATC 16 **Kun Suo**, Jia Rao, Luwei Cheng, Xiaobo Zhou, Francis C.M. Lau, *xBalloon: Bridging the Gap between Physical and Virtual Environments in I/O Prioritization*, in Proceedings of USENIX Annual Technical Conference, Denver, 2016.

Under Submission

- ATC 19 **Kun Suo**, Jia Rao, Hui Lu, Jiaxin Lei, *FALCON: Improving the Performance of Container Overlay Networks via Software Interrupt Pipelining*, in Proceedings of USENIX Annual Technical Conference, Renton, WA, United States, 2019.
- HotCloud 19 Jiaxin Lei, **Kun Suo**, Hui Lu, Jia Rao, *Tackling Parallelization Challenges of Kernel Network Stack for Container Overlay Networks*, in Proceedings of 11th USENIX Workshop on Hot Topics in Cloud Computing, Renton, WA, United States, 2019.

Teaching Experience

- 2019/01–
Now **Graduate Teaching Assistant** in the University of Texas at Arlington, CSE 3320, Operating Systems
- 2018/08–
2018/12 **Graduate Teaching Assistant** in the University of Texas at Arlington, CSE 5311, Design and Analysis of Algorithms
- 2016/08–
2016/12 **Graduate Teaching Assistant** in the University of Texas at Arlington, CSE 3320, Operating Systems
- 2015/07–
2015/08 **Undergraduate Temporary Instructor** in the University of Colorado, Colorado Springs, International Student Summer Camp, Cloud Computing

Professional Experience

- 2017/01–
2018/07 **Graduate Research Assistant** in the University of Texas at Arlington. Advisor: Dr. Jia Rao.
- 2016/06–
2016/08 **Research Intern** in Huawei Research Labs, Santa Clara, CA. Topic: Network packet monitoring under large scale containers environment.

- 2013/08–2016/05 **Graduate Research Assistant** in University of Colorado, Colorado Springs. Advisor: Dr. Jia Rao.
- 2012-2013 **Research Student** in Kyoto University, Japan.
- 2011-2012 **Research Assistant** in Nanjing University. Advisor: Dr. Zhenyu Chen.

Academic Service

- Reviewer IEEE International Conference for Parallel Processing (ICPP 2015, 2016)
- Reviewer IEEE International Conference on Cloud Computing (CLOUD 2016)
- Reviewer IEEE International Performance Computing and Communications Conference (IPCCC 2016, 2017)
- Reviewer Journal of Parallel and Distributed Computing (JPDC 2018)

Patents

- CN-102622082-B Method for controlling computer based on mobile phone sensors, Qingkai Shi, Jinru Hua, Qin Liu, Yemin Sui, **Kun Suo**, Yinlan Zhao, Dong Shao, Guoping Rong

Awards

- 2019.04 UTA Graduate Summer 2019 Dissertation Fellowship
- 2018.06 Student Travel Award, IEEE ICDCS 2018
- 2018.06 UTA Graduate Student Research and Travel Grant
- 2018.03 Student Travel Award, ACM EuroSys 2018
- 2018.02 Student Travel Award, IEEE INFOCOM 2018
- 2017.09 Best Poster Award of ACM SoCC 2017
- 2017.09 Student Travel Award, ACM SoCC 2017
- 2016.08 Best Paper Award of APSys 2016
- 2016.06 Student Travel Award, USENIX ATC 2016
- 2016.04 Student Travel Award, ACM ASPLOS 2016
- 2016.03 UCCS Graduate Student Travel Award
- 2015.06 Student Travel Award, ACM SIGMETRICS 2015
- 2012.06 Excellent Graduates of Nanjing University
- 2012.03 Google Technology Student Expert
- 2011.10 Second Prize of Chinese Sciences Cup National Software Design Contest
- 2010.06 SNDA Scholarship of Nanjing University