

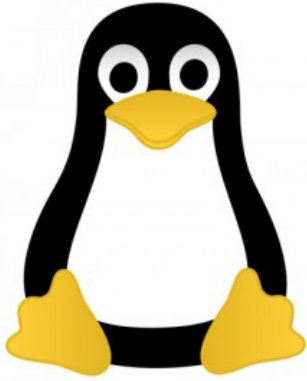


VLSI architecture,
synthesis & technology

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Zain (Zhenyuan) Ruan



I received my bachelor degree at Computer Science Department of University of Science and Technology of China in 2017. In the last year of my undergraduate life, I spent wonderful six months working at the system group of Microsoft Research Asia, where I am privileged to work with Dr. [Lintao Zhang](https://www.microsoft.com/en-us/research/people/lintaoz/) (<https://www.microsoft.com/en-us/research/people/lintaoz/>), Prof. [Guo Chen](https://1989chenguo.github.io/) (<https://1989chenguo.github.io/>), and Dr. [Bojie Li](https://ring0.me/whoami/) (<https://ring0.me/whoami/>).

Now I am a second year **master student** in Computer Science Department of UCLA. I am broadly interested in computer system, including storage system, networked system and operating system. Previously, I used to work on computer architecture (specifically on FPGA).

I'm going to graduate in **June 2019**.

Under Review:

1. **EISC: An Open-Source System-Level Emulation Platform for FPGA-Based In-Storage Computing.**

Zhenyuan Ruan, Tong He and Jason Cong.

Conference Papers:

1. **INSIDER: Redesign Storage System for Emerging High-Performance Drive**

Zhenyuan Ruan, Tong He and Jason Cong

2019 USENIX Annual Technical Conference (ATC'19)

Acceptance rate = 71 / 356 = **19.9%**

2. **Hardware Acceleration of Long Read Pairwise Overlapping in Genome Sequencing: A Race Between FPGA and GPU**

Licheng Guo, Ka Cheong Jason Lau, Zhenyuan Ruan, Peng Wei and Jason Cong

2019 IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM'19)

Acceptance rate = 38 / 159 = **23.9%**

3. **ST-Accel: A High-Level Programming Platform for Streaming Applications on FPGA.**

Zhenyuan Ruan, Tong He, Bojie Li, Peipei Zhou and Jason Cong.

2018 IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM'18)

Acceptance rate = 29 / 154 = **18.9%**

4. **Doppio: I/O-Aware Performance Analysis, Modeling and Optimization for In-Memory Computing Framework.**

Peipei Zhou, Zhenyuan Ruan, Zhenman Fang, Jason Cong, Megan Shand, David Roazen.

IEEE International Symposium on Performance Analysis of Systems and Software (ISPASS'18)

Acceptance rate = 21 / 67 = **31.3%**, **Best paper nominee**

5. **KV-Direct: High-Performance In-Memory Key-Value Store with Programmable NIC.**

Bojie Li*, **Zhenyuan Ruan*** (*: co-first authors), Wencong Xiao, Yuanwei Lu, Yongqiang Xiong, Andrew Putnam, Enhong Chen, Lintao Zhang.

In Proceedings of the 26th Symposium on Operating Systems Principles (**SOSP'17**)

Acceptance rate = 39 / 241 = **16.2%**

Workshop Papers and Posters:

1. (**Poster**) **Unleash The Performance of Emerging Storage via Reconfigurable Drive Controller.**

Zhenyuan Ruan, Tong He and Jason Cong.

13th USENIX Symposium on Operating Systems Design and Implementation (**OSDI'18**)

2. **Memory Efficient Loss Recovery for Hardware-based Transport in Datacenter.**

Yuanwei Lu, Guo Chen, **Zhenyuan Ruan**, Wencong Xiao, Bojie Li, Jiansong Zhang, Yongqiang Xiong, Peng Cheng, Enhong Chen.

In Proceedings of the First Asia-Pacific Workshop on Networking (**APNet'17**)

zainryan95@gmail.com (<mailto:zainryan95@gmail.com>)

Degree:

[MS \(/hidden/degreetype/ms\)](#)