

Gefei Zuo

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Education

University of Michigan

Sep.2018 – present

Ph.D. student in Computer Science and Engineering

- GPA 3.89/4.00

University of Science and Technology of China (USTC)

Sep.2014 – Jun.2018

B.E. in Computer Science, in the Special Class for the Gifted Young (SCGY)

- Cumulative GPA 3.75/4.30, Rank 15/140
 - Enrolled in the Talent Program in Computer and Information Science and Technology
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Research Experience

Graduate Student Research Assistant, advised by Prof. [Baris Kasikci](#)

UNIVERSITY OF MICHIGAN

Hardware-assisted Debugging

May.2019 – present

Combine record & replay (online, heavyweight) and symbolic execution (offline, computation intensive) to recover execution history before a certain crash.

NVM File-Indexing Structures Analysis

Dec.2018 – present

Analyse the impact of file-indexing structures on current NVM filesystems.

Hypervisor for Shared-Memory FPGA Platforms

Oct.2018 – present

A virtualization solution for emerging FPGA platforms. It enables processes in guest VM share the same view of virtual memory to circuits on FPGA.

System Group Intern, instructed by [Lintao Zhang](#)

MICROSOFT RESEARCH ASIA

Efficient and Scalable Total-Order Message Scattering in Datacenter Network[1] Jul.2017 – Oct.2017

- Offload reordering and buffering to endhost: separate control plane from data plane.
- Readily deployable: applicable to programmable switches, commodity switches or endhosts only.

Soft Robot Lab, instructed by [Xiaoping Chen](#)

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Whole manipulator control in constrained environments[2]

Dec.2016 – Mar.2017

- Extend traditional Jacobians method with new constraints, take obstacle's information into account.
 - Enable our softrobot work in environments with obstacles.
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Publications

[1]Near-Optimal Total Order Message Scattering in Data Center Networks

Gefei Zuo

SOSP'17 Student Research Competition

[2]Whole manipulator control in constrained environments

Dengyuan Wang, Xiaotong Chen, Gefei Zuo, Xinghua Liu, Zhanchi Wang, Hao Jiang and Xiaoping Chen

RiTA 2017

Project Experience

USTC Freeshell

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Maintainer

Sep.2014 – Jul.2017

- An IaaS service for students to learn and use Linux, supporting various Linux distributions.
- Utilize OS level virtualization (OpenVZ), distributed storage (Ceph), dynamic routing (RIP).

USTC Open Source Software Mirror

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Maintainer

Jul.2015 – Mar.2017

- It is one of the largest open-source software mirrors in China.
 - It hosts 25 TiB+ content and generates 10 TiB+ network traffic per day.
 - Deal with many kinds of performance or software/hardware issues.
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Honors and Awards

SOSP'17 Student Research Competition (Undergraduate Category), the Second Place

Oct.2017

USTC Outstanding Student Scholarship (Grade 2)

2016, 2017

Skills

Programming: C/C++, Python, Matlab, Bash, Verilog

Github: <https://github.com/Alkaid-Benetnash>