GUANZHOU HU

+1 (608) 358-7772 ⋄ guanzhou.hu@wisc.edu ⋄ https://josehu.com

EDUCATION

University of Wisconsin—Madison *Aug 2020 - Present*
Ph.D. Student, Computer Science *Madison, WI, USA*

- Supervised by Prof. Andrea Arpaci-Dusseau and Prof. Remzi Arpaci-Dusseau
- Research areas: Operating systems, Storage systems, Caching, NVM devices

ShanghaiTech University *Sep 2016 - Jul 2020*
B. Eng., Computer Science & Technology *Shanghai, China*

- GPA: 3.9 / 4.0 (rank 2 / 183)
- Honors: Dean's Scholarship (2019), President's Scholarship (2017, 2018)
- Relevant coursework: Operating systems, Computer architecture III, Parallel computing

Massachusetts Institute of Technology *Sep 2019 - Jun 2020*
Special Student, Electrical Engineering & Computer Science *Cambridge, MA, USA*

- GPA: 4.0 / 4.0
- Relevant coursework: Distributed systems, Computer networks, Computer systems security

PUBLICATIONS & PATENTS

A Storage System Management Policy Based on Data Content Locality. Yin, S. and Hu, G. 2019. CN. Patent application 201910499391.9, filed in June 2019.

RESEARCH EXPERIENCE

Scalable & Affordable GCNs with Serverless Computing *Jul 2019 - Oct 2019*
CSST Research Intern, UCLA, with Prof. Harry Xu *Los Angeles, CA, USA*

- Integrated serverless computing into graph computing to build an affordable, efficient, and scalable graph convolutional networks (GCNs) computation platform without dedicated GPUs.
- Implemented the first workable prototype with AWS Lambdas service, and reached linear scalability and 100% cost-efficiency.

NcTrace: Optimized Trace Data Storage with the netCDF Format *Mar 2019 - Aug 2019*
Leader of Project Team, ShanghaiTech University, with Prof. Shu Yin *Shanghai, China*

- Optimized storage of comma-separated values (CSV) trace data using the netCDF format. Introduced the "dimension packing" model which reduces file size and accelerates analysis tasks.
- Tested with Google cluster traces, and achieved 7:1 size reduction with 2 orders of magnitude acceleration on reading.

Active I/O: Parallel Content-Aware Storage System *Jan 2019 - Aug 2019*
Research Assistant, ShanghaiTech University, with Prof. Shu Yin *Shanghai, China*

- Designed a high-performance, parallel file system which aims to dig out the "content locality" within highly-structured data formats, by clustering data by topics and providing users a better locality when operating on a subset of topics.

- Tested with Robot Operating System bag files, and achieved 6.5x performance improvement on opening and at least 1.4x on reading.

TEACHING EXPERIENCE

Teaching Assistant in Computer Architecture *Feb 2019 - Apr 2019*
School of Information Science & Technology *Shanghai, China*

Teaching Assistant in Operating Systems *Sep 2018 - Jan 2019*
School of Information Science & Technology *Shanghai, China*

- Guided semester-long course projects on the PintOS system kernel from Stanford CS140.

Teaching Assistant in Discrete Mathematics *Mar 2018 - Jul 2018*
School of Information Science & Technology *Shanghai, China*

PRIZES & AWARDS

Outstanding Research Award, CSST Program 2019, UCLA *Sep 2019*

Second Class Prize, ASC Supercomputing Competition 2019 (GeekPie_HPC team leader) *Mar 2019*

Outstanding Teaching Assistant Award, ShanghaiTech University *Jan 2019*

Meritorious Winner, Mathematical Contest in Modelling (MCM) 2018 *Apr 2018*

MISCELLANEOUS

- **Skills**: System programming, C/C++, Rust, Go, Python, Linux server dev/ops, MIPS
- **Languages**: Chinese (native), English (fluent)