

Guanzhou Hu

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EDUCATION

University of Wisconsin-Madison	Aug 2020 - Jun 2025
Computer Science Ph.D. Student,	Madison, WI, USA
<ul style="list-style-type: none">Supervised by Prof. Andrea Arpaci-Dusseau and Prof. Remzi Arpaci-Dusseau	
ShanghaiTech University	Sep 2016 - Jul 2020
Computer Science and Technology B.Eng.,	Shanghai, China
<ul style="list-style-type: none">GPA: 3.9 / 4.0 (rank 2 / 183)Honors: Dean's Scholarship (2019), President's Scholarship (2017, 2018), Outstanding Student (2017, 2018)Relevant coursework: Operating Systems, Computer Architecture III, Compilers, Parallel Computing	
Massachusetts Institute of Technology	Sep 2019 - Jun 2020
Electrical Engineering & Computer Science Special Student,	Cambridge, MA, USA
<ul style="list-style-type: none">Relevant coursework: Distributed Systems Engineering, Computer Networks, Computer Systems Security	

RESEARCH EXPERIENCE

Affordable AI: Cost-Efficient & Scalable Graph Convolutional Networks Computing Framework with the Aid of Serverless (Lambda) Computing	Jul 2019 - Oct 2019
CSST Research Intern, University of California, Los Angeles, with Prof. Harry Xu	Los Angeles, CA, USA
<ul style="list-style-type: none">Integrated new and emerging <i>serverless computing</i> techniques into traditional graph computing to build an affordable, efficient, and highly-scalable graph convolutional networks (GCNs) computing platform without expensive 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, L.I.O.N group, with Prof. Shu Yin	Shanghai, China
<ul style="list-style-type: none">Optimized the storage of comma-separated values (CSV) trace data using the netCDF I/O library. Introduced the "dimension packing" storage model which reduces the file size and accelerates users' analysis tasks.Tested with Google cluster traces, and achieved 7:1 size reduction with 2 orders of magnitude acceleration on reading.	
Active I/O: High-Performance Parallel Content-aware Storage System	Jan 2019 - Aug 2019
Research Assistant, ShanghaiTech University, L.I.O.N Group, with Prof. Shu Yin	Shanghai, China
<ul style="list-style-type: none">Designed a high-performance, parallel file system named RosFS. It 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.	

PRIZES & AWARDS

Outstanding Research Award, CSST Program 2019, University of California, Los Angeles	Sep 2019
Second Class Prize, ASC Supercomputing Cluster Competition 2019 (team leader)	Mar 2019
Outstanding Teaching Assistant Award, School of Information Science and Technology	Jan 2019
Meritorious Winner, Mathematical Contest in Modeling (MCM) 2018	Apr 2018

TEACHING EXPERIENCE

Teaching Assistant in Computer Architecture	Feb 2019 - Apr 2019
School of Information Science and Technology, ShanghaiTech University	Shanghai, China
Teaching Assistant in Operating Systems	Sep 2018 - Jan 2019
School of Information Science and Technology, ShanghaiTech University	Shanghai, China
<ul style="list-style-type: none">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 and Technology, ShanghaiTech University	Shanghai, China

PUBLICATIONS & PATENTS

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

MISCELLANEOUS

- **Skills:** System programming, C/C++, Rust, Go, Python, Linux server dev/ops, MIPS
- **Languages:** Chinese (Native), English (Fluent), Japanese (Basic)