

Guanzhou Hu

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EDUCATION

Massachusetts Institute of Technology <i>Undergraduate Student, Computer Science</i> <ul style="list-style-type: none">Relevant coursework: Computer Networks (graduate), Artificial Intelligence	<i>Sep 2019 - Jul 2020</i> <i>Cambridge, MA, USA</i>
ShanghaiTech University <i>Candidate for B.E., Computer Science and Technology</i> <ul style="list-style-type: none">GPA: 3.9 / 4.0 (rank 2 / 183)Honors: President's Scholarship (2017, 2018), Outstanding Student (2017, 2018)Relevant coursework: Computer Architecture III (graduate, A+), Compilers (A+), Parallel Computing (A+)	<i>Sep 2016 - Jul 2020</i> <i>Shanghai, China</i>

RESEARCH PROJECTS

Affordable AI: Cheap & Scalable Graph Convolutional Networks Computing Framework with the Aid of Serverless (Lambda) Computing <i>CSST Summer Research Intern, University of California, Los Angeles</i> <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 in GCNs' tensor computation.	<i>Jul 2019 - Present</i> <i>Los Angeles, CA, USA</i>
NcTrace: Optimized Trace Data Storage with the netCDF Format <i>Leader of project team, ShanghaiTech University, L.I.O.N group</i> <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.	<i>Mar 2019 - Aug 2019</i> <i>Shanghai, China</i>
Active I/O: High Performance Parallel Content-aware Storage System <i>Research Assistant, ShanghaiTech University, L.I.O.N Group</i> <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 like Robot Operating System (ROS) bags and Visual Molecular Dynamics (VMD) molecules.Tested with ROS bag files, and achieved 6.5x performance improvement on opening and at least 1.4x on reading.	<i>Jan 2019 - Aug 2019</i> <i>Shanghai, China</i>

TEACHING EXPERIENCE

Teaching Assistant in Computer Architecture <i>School of Information Science and Technology, ShanghaiTech University</i> <ul style="list-style-type: none">Guided course projects on the <i>Pintos</i> system kernel from Stanford CS140.	<i>Feb 2019 - Apr 2019</i> <i>Shanghai, China</i>
Teaching Assistant in Operating Systems <i>School of Information Science and Technology, ShanghaiTech University</i>	<i>Sep 2018 - Jan 2019</i> <i>Shanghai, China</i>
Teaching Assistant in Discrete Mathematics <i>School of Information Science and Technology, ShanghaiTech University</i>	<i>Mar 2018 - Jul 2018</i> <i>Shanghai, China</i>

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.

AWARDS

- 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*

MISCELLANEOUS

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