Guanzhou Hu

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EDUCATION

ShanghaiTech University *Sep 2016 - Jul 2020*

Candidate for B.E., Computer Science and Technology *Shanghai, China*

- 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+)

Massachusetts Institute of Technology *Sep 2019 - Dec 2019*

Undergraduate Special Student, Computer Science *Cambridge, MA, USA*

- Relevant coursework: Computer Networks (graduate), Artificial Intelligence

RESEARCH PROJECTS

Affordable AI: Cheap & Scalable Graph Convolutional Networks Computing Framework with the Aid of Serverless (Lambda) Computing *Jul 2019 - Present*

CSST Summer Research Intern, University of California, Los Angeles *Los Angeles, CA, USA*

- Integrated new and emerging *serverless computing* 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 combining ASPIRE graph computing framework with AWS Lambdas.

NcTrace: Optimized Trace Data Storage with netCDF Format *Mar 2019 - Aug 2019*

Leader of project team, ShanghaiTech University, L.I.O.N group *Shanghai, China*

- Optimized the storage of Comma Separated Values (CSV) trace data using the netCDF I/O library. Introduced the "*dimension packing*" storage model which reduces file size, meanwhile 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 Locality Storage System *Jan 2019 - Aug 2019*

Research Assistant, ShanghaiTech University, L.I.O.N Group *Shanghai, China*

- Designed a high-performance, parallel file system named RosFS. It aims at digging 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.

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*

- Guided 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*

PATENTS

- Yin, S. and Hu, G. 2019. *A Storage System Management Policy Based on Data Content Locality*. CN. Patent Application xxxxxxxx, 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)