Leiyu Zhao

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EDUCATION

Carnegie Mellon University, School of Computer Science   *Aug. 2016 to Dec. 2017*
Master of Computational Data Science (MCDS, formerly VLIS) - Systems Track; Advisor: Garth Gibson
Cumulative GPA: 4.11/4.33; Core Courses: Operating Systems, Cloud Computing, Distributed Systems, Storage Systems,
Parallel Programming, Advanced Cloud Computing, Database Systems

Tsinghua University   *Aug. 2012 to July 2016*
Bachelor of Engineering (B.Eng.), Computer Software Engineering
Major GPA: 97/100 (4.00/4.00), ranking 1/63; Cumulative GPA: 94/100 (3.94/4.00), ranking 2/63

EXPERIENCE

Facebook, Core Systems Group, Shard Manager Team   *May. 2017 to Aug. 2017*
Software Engineer Intern, C++14/Sharding-as-a-Service/Zookeeper/Thrift/Python
Design & implement *Storm Policy* for *Shard Manager*, to provide better ways of handling massive server failure (storm)
in terms of finer action semantics, higher shards availability, shorter recovery time and better fault tolerance insights
Applied in prod tier and benefits 1,000+ services at Facebook across 8 datacenter regions

Microsoft, Operating Systems Group China (OSGC, ARD)   *Mar. 2015 to July 2015*
Software Developer Intern, C#/WPF/.NET/UWP
Develop built-in universal apps for Windows 10 Chinese Market Release, like *Nearby Numbers* and *Microsoft Couplet*

Tsinghua, Cloud Computing Group, Institute of Trustworthy Networks and Systems   *June 2015 to July 2016*
Research Assistant, Golang/Python/OpenStack/HDFS/Ceph
Deploy OpenStack to back up THU Cloud Computing Platform; Design & implemented H2Cloud, a cloud storage service

SELECTED PROJECTS

CloudFS (Hybrid Storage System)   *Oct. 2016 to Dec. 2016*
FUSE-based filesystem on Linux to store files in hybrid mode & utilize the speed of SSD and high capacity of cloud storage
Hidden complexity for applications; Full support for deduplication, local caching, snapshot & instant recovery

Accel.js   *Mar. 2017 to Present*
A package helping developer using simple primitives to run Node.js programs on multicores and multi-nodes
Win 2nd prize (out of 110 projects) in CMU 15-418 Parallelism Competition (by judges from Intel and NVIDIA)

H2Cloud   *Sept. 2015 to Apr. 2016*
Cloud storage system supporting full-fledged filesystem based on a single object storage cloud
Faster than OpenStack Swift in filesystem operations, while more reliable than Dropbox in filesystem storage

Zijing Zhi Sheng (the Sound of Tsinghua)   *Oct. 2014 to Jan. 2015*
A web app to offer ticket booking service to all the staff at Tsinghua, capable of handling 3K+ concurrent user requests
More than 21,000 users. Sell tickets for tens of 2000-participant events (Up to Oct. 2015)

Graphical User Interface for UNIX   *Oct. 2014 to Feb. 2015*
A graphic card driver, a USB-mouse driver and a Windows-like GUI for UNIX kernel (Unix v6)
Set of syscalls for GUI manipulation and interaction

Js2Jv (ANTLR-based Javascript Interpreter)   *May 2015 to July 2015*
Full-featured Javascript runtime in JVM supporting asynchronous functions, closure, etc. with ECMAScript 3 analyzer

SKILLS

Programming Languages: *Proficient in* C/Golang/C++14/Javascript, *Familiar with* Java/Python/C#/Haskell/Asm-x86;
Algorithms & Data Structures; **Cloud Computing:** AWS/OpenStack; **Distributed/Parallel:** MapReduce/Spark/CUDA;
Web Development: HTML/CSS/Nginx/ExpressJS/Django; **Database:** MySQL/MongoDB/Apache HBase;

SELECTED AWARDS

Excellent Works Award, 2014 Intel Mobile Computing Innovation Contest   *Oct. 2014*
Designing a wearable computing device, using infrared camera to recognize gestures for interaction

Bronze Medal in National Olympiad in Informatics   *Aug. 2011*
Top competition in algorithms & data structure in China

Gold Medal in 5th Asia-Pacific Informatics Olympiad   *May 2011*
International competition in algorithms & data structure