

# 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; Relevant Courses: Cloud Computing, Distributed Sys., Storage Sys., Parallel Program., etc.

### 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

May. 2017 to Aug. 2017

Software Engineer Intern @ Shard Manager, C++11/Zookeeper/Thrift/Sharding-as-a-Service

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 ~1000 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*

Develop non-built-in universal apps for Windows 10, like *Microsoft How-old* 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 2<sup>nd</sup> 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

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/Javascript/Golang, Familiar with Java/Python/C#/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