

Leiyu Zhao

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github.com/levythu

EDUCATION

Carnegie Mellon University, School of Computer Science

Aug. 2016 to Dec. 2017

Systems Track, Master of Computational Data Science (MCDS, formerly VLIS); Advisor: Garth Gibson

Core Courses: Operating Systems, Cloud Computing, Distributed Systems, Storage Systems, Parallel Programming, Advanced Cloud Computing, Database Systems; GPA: 4.07 / 4.33

Tsinghua University, School of Software

Aug. 2012 to July 2016

Bachelor of Engineering (B.Eng.), Computer Software Engineering; GPA: 3.94/4.00

EXPERIENCE

Facebook

Mar. 2018 to Present

Software Engineer, *Incoming*

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*, provide better semantics and availability when handling massive server failure. Applied in prod tier and benefits services at Facebook across all datacenter regions, feeling proud of it

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

LevyOS (Mini OS Kernel)

Oct. 2017 to Dec. 2017

Full-fledged OS Kernel with support for preemptive process scheduling, multi-threading, multi-console, VM hosting, etc.
Built on my own from zero with 11k+ lines of C. Feeling very proud of it.

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

In-kernel support to graphic driver, USB-mouse driver and a Windows-like GUI for UNIX kernel (Unix v6)

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

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