Zeyuan Hu

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EDUCATION

University of Texas **Austin, TX** **Sept 2017 – May 2019**

- M.S. in Computer Science. (GPA: 3.81/4.00)

University of Wisconsin **Madison, WI** **Sept 2010 – Dec 2014**

- B.A. Triple Major, Computer Science, Economics with Honors, Mathematics. (GPA: 3.80/4.00)

WORK EXPERIENCE

Cloud Architect Engineer **State Street Financial Service** **June 2019 – September 2019**

Omnia Storage Team

- Built auto-deployment system of IBM Cloud Object Storage in multi-site clusters using `Ansible`, `Docker`
- Developed a distributed workload generator and performance benchmark toolkit in `Go`

Software Engineer **IBM** **August 2015 – August 2017**

DB2 LUW federation team

- Constructed `Hive` and `Impala` wrappers with `C++` and `Java` to support federation database between traditional RDBMS and Hadoop-based data warehouse solution
- Created automated setup tools with `Shell` that reduce product configuration time by 75%
- Enhanced server option optimization tools using `C` to reduce federation database performance tuning time by 90 % and enable the capability of tuning the product against Hive, Impala, and Spark
- Resolved over 20 defects, including a severe memory leak issue that impacted a $1.6 million deal. *Awarded IBM Manager's Choice Award 2016*

Software Engineer Internship **Schlumberger** **May 2018 – August 2018**

HPC infrastructure team

- Implemented a monitoring component of the in-house High-Performance Computing (HPC) engine in `C++` to provide the fault tolerance and handle the "straggler" problem
- Employed SGD algorithm to dynamically learn the best timing for backup executions of the in-progress tasks based on the computation task characteristics
- Built a `C++` code generator that automatically generates the application layer code based on the engine API

SELECTED PROJECTS

- **RustFS** (2018 - 2019). Building a user-space file system that leverages NVMe SSD. `Rust`, `SPDK`
- **Strata with Lease** (2018). Extended Strata file system with Lease mechanism to support concurrent file access across processes. `C`.
- **HyperPebblesDB** (2018). Constructed a key-value store that is part of LevelDB family with focus on reducing write amplification. `C++`, `CMake`, `Autotools`
- **Distributed Key-Value Store** (2018). Built a distributed key-value store with `Python` that uses *eventually consistency* model with two session guarantees: *Read Your Writes* and *Monotonic Reads.*

LANGUAGES AND TECHNOLOGIES

- **Languages:** C++, C, Python, Go, Rust, Shell, SQL, Java, Elisp, MATLAB
- **Software:** CMake, Autotools, Git, Docker, Ansible, QEMU, Tensorflow, Keras, ClearCase, Hive, Impala, Maven, Hadoop