

# Hao Zhang (张豪)

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## Education

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### NCEPU

Bachelor of software engineering

2016/09 – 2020/07

Baoding, Hebei

## Work Experience

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### EloqData

Software Engineer

Since 2022/11

Beijing

- [C++] Develop MonoSQL which encapsulate DynamoDB to be used as a storage engine for MariaDB
- [C++] Develop CDC for EloqSQL to replicate incremental data
- [C++] Develop the EloqLoad. A tool used for importing data at TB scale to EloqSQL
- [Rust] Develop the command line tool eloqctl for deploying and controlling EloqSQL and EloqKV clusters
- [Golang] [github.com/monographdb/tidb](https://github.com/monographdb/tidb) Develop EloqDM which is a fork from TiDB-DM, make it compatible with EloqSQL
- [Golang] [github.com/monographdb/codis](https://github.com/monographdb/codis) Develop Codis to make it compatible with EloqKV
- [Golang] [github.com/monographdb/juicefs](https://github.com/monographdb/juicefs) Develop JuiceFS to use EloqKV as it's metadata engine
- [Shell] Build the release workflow of EloqSQL and EloqKV based on concourse

### Tap4fun

Golang Developer

2020/07 – 2021/12

Chengdu

Participated in the development of “Age of Apes” and “Invasion”

## Network courses

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**TinyKV** [github.com/howz97/tinykv](https://github.com/howz97/tinykv)

**MIT6.824** [github.com/howz97/mit6.824](https://github.com/howz97/mit6.824)

**CMU15-445** [github.com/howz97/bustub](https://github.com/howz97/bustub)

**CMU15-721** [github.com/howz97/postgres/tree/2023-S721-P1](https://github.com/howz97/postgres/tree/2023-S721-P1)

Implement a foreign data wrapper for Postgres to support columnar storage.

**toyos** [github.com/howz97/toyos](https://github.com/howz97/toyos)

A naive os implemented following the guidance of “[Writing an OS in Rust](#)” blog series.

## Personal Projects

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**Algorithm Library** [github.com/howz97/algorithm](https://github.com/howz97/algorithm)

Since 2019/07

A algorithm library written in golang, covering all contents of “Algorithms” by Robert Sedgewick. This library includes sorting, balanced tree, graph, string sorting/search/matching/compression, priority queue.

**LSM-Tree** [github.com/howz97/lsm-tree](https://github.com/howz97/lsm-tree)

Lightweight key/value storage engine based on lsm-tree. Implemented basic compaction, WAL, MVCC based transaction, optional serializable snapshot isolation.

**Bitcask** [github.com/howz97/bitcask](https://github.com/howz97/bitcask)

Lightweight key/value storage engine based on bitcask, written in async rust.

**time-wheel** [github.com/howz97/time\\_wheel](https://github.com/howz97/time_wheel)

A timer written in rust.

## Open-Source Contributions

- [github.com/etcd-io/etcd/pull/13870](https://github.com/etcd-io/etcd/pull/13870)
- [github.com/MariaDB/server/pull/2813](https://github.com/MariaDB/server/pull/2813)