

Education

University of California, San Diego*Master of Science in Computer Science*

La Jolla, CA

Sept 2017 – Mar 2019

- **Courses:** Operating Systems, Security, Database, Networked Systems, Neural Networks, Parallel Computing.

Shanghai Jiao Tong University*Bachelor of Science in Electrical and Computer Engineering*

Shanghai, China

Sept 2013 – Aug 2017

Programming Skills

Languages: C/C++, Python, SQL, Go, Java, Scala, Javascript.**Skills:** Large Scale Distributed System, Performance Optimization, Data Processing Pipeline, Multiprogramming**Tools:** gRPC, Flume, Git, TensorFlow, PyTorch, Docker, Gradle, Maven, Django, ProtoBuf.

Experience

Google*Senior Software Engineer @ YouTube Ads Infrastructure*

Mountain View, CA

May 2019 – Now

- **Tech lead** for YouTube Ads indexing infrastructure. Led and mentored 3 junior engineers with an **Agile** methodology that fosters their technical growth and ensures successful delivery of projects.
- Designed and implemented a **large-scale distributed data system** for YouTube Ads that handles over 1 million Incremental updates. Leveraged **Change Data Capture** and **Spanner** database to achieve high-throughput data ingestion. Achieved a significant 97% reduction in incremental processing time.
- Orchestrated optimization and migration for ads retrieval systems that improves the **scalability** for 10x growth in the future and saves 10%+ resources.
- Spearheaded design and implementation of a low latency **feature extraction** solution for factorized and nearest neighbor machine learning model.
- Established a **CI/CD** workflow incorporating integration and regression tests and automated release process for fast and high quality integration and deployment .

Google*Software Engineer Intern @ Display Ads Infrastructure*

Mountain View, CA

June 2018 – Sept 2018

- Developed a data pipeline in **Flume** to generate user profile digest for ads recommendation, fixing 75% missing data generation and traffic tracking.
- Implemented an web UI using **Django** for monitoring a petabyte scale data service.

Intel Asia-Pacific R&D Center*Software Engineer Intern @ BigDL Data Analytics*

Shanghai, China

Feb 2017 – July 2017

- Designed memory shared mechanism for buffers in **Neural Network** modules that saves 50% of memory usage.
- Built a graph converter in **Scala** that converts machine learning models into graphs to accelerate the training of NN modules.

Ailibi Medical Technology Co.*Software Engineer Intern*

Shanghai, China

Dec 2014 – Feb 2015

- Built and deployed the official website for the company using HTML/CSS/jQuery.
- Conducted user requirements and specification investigation for the company's mobile app.

Projects

Key Value Storage Server: RAFT based strongly consistent key value storage system with linearizability and idempotent transaction using **Go**.**Vulnerability Excavation of Secure DDS Systems:** A passive network reconnaissance technique extracting underlying data object topology of Secure DDS Systems built in **Ocaml** and deployed with **Docker**.