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OBJECTIVE

After 9 years at Google, I'm looking for team-founding opportunities focusing on backend systems.

EXPERIENCE

Senior Software Engineer Google Seattle
Persistent Disk - Disks in every VM 2020 - Present
In an organisation of 200 engineers, led a project that split the monolithic release pipeline into smaller ones owned by individual teams. Navigated through the vast solution space, gathered support from multiple teams and delivered on time. Currently working on an industry-leading feature that replicates hard disks across regions under consistency guarantees. Mentored 3 junior engineers in the meantime.

Senior Software Engineer Google Seattle
Panels - Antifraud with big data 2019 - 2020
Worked on an antifraud project that removed a large amount of false data from a valuable data set. Applied cutting edge technology in adjacent research areas on the huge amount of data collected under explicit consent and compensation. The model was later validated by manual reviews and demonstrated high accuracy.

Senior Software Engineer Google Seattle
Blogger - Web and large scale data migration 2015 - 2019
Led several multiple-quarter projects, including large scale data migrations, new feature developments and improvements to anti-abuse techniques. Duties including oncall for the high traffic web service, technology evolutions and other general backend-related tasks. Blogger is one of the earliest and largest blog-publishing platforms.

Software Engineer Google Sydney
AppStats - Realtime timeseries database 2013 - 2014
Worked on a timeseries database that serves millions of queries per second from Blogger, Google Photos, Maps and other Google projects, at close-to-real-time latency. As a core contributor, made improvements end-to-end throughout the service, from building and testing infrastructure, wipeout pipelines to effectiveness of the master election algorithm.

Software Engineer Intern Facebook
Evergreen - eco-friendly datacenters 2012
Designed and developed an internal tool that predicts server power consumption based on existing mathematical models. Implemented a separate calculation engine for later reuse and a friendly web UI.

SKILLS

Mentoring junior team members.

Software engineering: planning, testing, qualification and releasing.

Deep understanding of **distributed systems** and **the Raft consensus protocol**.

Proficient in **concurrent programming**: locks, atomic primitives and communication in multi-thread environments.

Proficient in **large scale data migration**.

Proficient in **Java** (6 years), **C/C++** (6 years) and **Linux** (10+ years).

Experienced with **SQL** and **Rust** (10000 lines).
Familiar with **Python** and **Ruby**.

EDUCATION

Harbin Institute of Technology Bachelor, Computer Science	Harbin, China GPA: top 10%	09/2009 - 07/2013
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PROJECT HIGHLIGHTS

Personal Projects 01/2019 - Present

- **Ruaft**, an implementation of the Raft consensus protocol in Rust. Carefully architected to minimize response latency while being resilient to tough network environments. Handles 4000 queries per second in ideal environments.
- **Shadowrocks**, a lightweight stealth proxy to bypass hostile firewalls. Greatly reduced attack surface by slightly modifying the original shadowsocks specification.

Facepile Data Migration 04/2015 - 08/2017

Led two engineers on this project. With zero down time, we migrated 300 million data entries away from the deprecated storage infrastructure. As a result, the widget disappeared from the “Top Reported Issues” list.

MapReduce Pipeline Optimization 04/2014 - 11/2014

Designed a string prefix matching algorithm for the critical path of the pipeline. Improved the processing speed of a MapReduce pipeline by a factor of 20. Enhanced with the algorithm and other architecture improvements, the new pipeline was able to process 1.5 years’ worth of legacy requests within a single day, matching millions of requests against tens of billions of keys in each run.

HONORS AND AWARDS

Gold medal in ACM-ICPC (International Collegiate Programming Contest) China Fuzhou Invitational Programming Contest, 2011.
Silver medals in ACM-ICPC Asia Regional Contest Dalian and Shanghai Site, 2011.
Silver medals in ACM-ICPC Asia Regional Contest Harbin and Chengdu Site, 2010.
Scholarship of State, 2010. Top 4.