Pinglei Guo

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Education

MS. Computer Science University of California Santa Cruz *Sep. 2016 – June 2018*

BS. Material Science Shanghai Jiao Tong University *Sep. 2012 – June 2016*

Programming language

Experienced	Golang, Java, JavaScript (Node.JS), PHP, HTML, CSS, MATLAB
Intermediate	Python, Shell, SQL, C#, Ruby, Scala, TypeScript

Software & Frameworks

Experienced	Git, Laravel, Express, AngularJS, jQuery, BootStrap, Vagrant
Intermediate	MySQL, Redis, MongoDB, ElasticSearch, Rails, Dropwizard, Spring, ASP.NET, D3.js
Basic	Docker, Mesos, Kubernetes, Cassandra, Kafka, Ceph, Hadoop, HBase, Hive, Netty

Experience

Systems Research Lab: Research assistant UC Santa Cruz *Oct. 2016 – Present*

- Building a **hybrid distributed time series and graph database** for OLAP as master thesis
- Validating **distributed systems** (ie: Ceph) correctness by extending Jepsen

SJTU CIT Lab: Research assistant Shanghai, China *Mar. 2015 – Jan. 2016*

- Built a **distributed system monitoring and predicting prototype** using **Cassandra** and **ElasticSearch**
- Found memory bug in China Telecom's production Storm Cluster using the prototype
- Coauthored the paper *CPU load Prediction based on a multidimensional spatial voting model*

GitCafe: **Software Engineer Intern** Shanghai, China *Jan. 2016 – Mar. 2016*

- Built web application using **Rails** and **AngularJS**. Use **ElasticSearch** and **MongoDB** as backend storage.
- Optimized markdown parser, added support for todo and increased 10% speed.

Dongyue Web Studio: Full stack web developer & President Shanghai, China *Sep. 2013 – Jan. 2016*

- Lead web and mobile development of `http://tongqu.me` increased daily active user from **500 to 3,000**.
- Handle **high concurrency** by using **Redis** for cache and rate limit, increase **QPS by 120%** for hot events
- Added functionality of booking movie tickets and sports venues, integrate with Alipay for **online payment**
- Built internal **continuous integration** for test and deploy system around **GitLab** using **container**.
- Built **RESTful API** and rich internet application using Laravel, AngularJS and BootStrap
- Started a weekly newsletter on **open source technologies** `https://github.com/dyweb/weekly`

Project

Xephon-B: Time series database benchmark suite: Project Leader UC Santa Cruz *Oct. 2016 – Present*

- `https://github.com/xephonhq/xephon-b` is a benchmark suite for **distributed time series databases**.
- Using **Golang** to generate load and using **Docker** and **Mesos** to setup test database clusters on **AWS**.
- Using **time series datbase** to store benchmark result and visualize using RESTful API and **D3.js**