

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
Intermediate Python, Shell, SQL, C#, Ruby, Scala

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 – Mar. 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 database** to store benchmark result and visualize using RESTful API and **D3.js**