

# Pinglei Guo

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## EDUCATION

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**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

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

## SOFTWARE & FRAMEWORKS

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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

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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

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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**