

# Zheyang Cen

🌐 zheyangc

in zheyangcen

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## SKILLS

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- Language: Java, JavaScript/HTML/CSS, Python, C/C++, SQL, PHP
- Framework/Library: Spring Boot, React, Angular, Socket.io, Node.js, Express.js,
- Tools: Tomcat, AWS, Gradle, npm, Docker, Git, NginX, Apache, Solr
- Database: DynamoDB, MongoDB, Redis, MySQL, SQLite

## EXPERIENCE

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### Zillow Group

Software Development Engineer

Seattle, US

Jul 2018 - Now

- Zillow Offer Resale Team.
- Built resale workflow to automate business process. (Java, Spring Boot, Flowable, AWS, Terraform)
- Built web tools for Zillow's resale managers to get, track and process offers more easily and efficiently. (React, Spring Boot)

## PROJECTS

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### Information Retrieval and Web Search Engine

Oct 2017 - Nov 2017

- Developed a web search engine to retrieve and search CNN news using Crawler4j and Apache Solr.
- Applied Page Rank for search, supported auto completion and spell correction features.
- Utilized jQuery and Materialize for front-end, PHP for back-end.

### Collaborative Online Code Playground

Aug 2017 - Oct 2017

- Designed and developed a single-page web application deployed on AWS for users to register, login, edit questions and code online using Auth0, Angular 4, Node.js and MongoDB.
- Created a code editor for multiple users to edit simultaneously by implementing Socket.io, Redis and ACE source.
- Built a code executor service with Flask to compile and execute Java, C++, Python codes inside Docker Unix image.
- Decoupled services using RESTful API and implemented load balance using Nginx to improve system throughput.

### Kernel Development for Weenix OS

May 2017 - Jun 2017

- Implemented threads, processes, scheduling and synchronization primitives on Unix-like Weenix OS.
- Developed virtual file system and virtual memory in C, managed address spaces and run user-level code.
- Tested, debugged kernel in GDB, and use Git for version control.

### Facebook Search, Web and Android Application

Jan 2017 - Mar 2017

- Designed responsive websites for information retrieval of Facebook entities using Facebook SDK and Graph API.
- Enhanced user experience at front-end using AngularJS and Bootstrap and constructed backend server logic for data processing and JSON response with PHP on AWS.
- Developed an Android app as mobile version for the web application using Android SDK in Java.

### Socket Programming for Distributed Computing

Oct 2016 - Nov 2016

- Constructed a computational offloading model where a single client offloads computation to and collected results from a web server which in turn distributed the load over another three backend servers.
- Established communications among a client, a web server and several backend servers over TCP and UDP connections by programming sockets with C++ in Linux after preprocessing.

## EDUCATION

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### University of Southern California

Master of Computer Science

Los Angeles, US

Aug 2016 - May 2018

### University of Birmingham

Bachelor of Engineering in Electrical Electronic and Computer Engineering

Birmingham, UK

Oct 2014 - Jun 2016

### Huazhong University of Science and Technology

Bachelor of Engineering in Electrical Engineering

Wuhan, China

Sep 2012 - Jun 2016