# **Zheyang Cen**

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# **SKILLS**

o Language: Java, JavaScript/HTML/CSS, Python, C/C++, SQL, PHP

o Framework/Library: Spring Boot, React, Angular, Socket.io, Node.js, Express.js,

o Tools: Tomcat, AWS, Gradle, npm, Docker, Git, NginX, Apache, Solr

o Database: DynamoDB, MongoDB, Redis, MySQL, SQLite

### **EXPERIENCE**

Zillow GroupSeattle, USSoftware Development EngineerJul 2018 - Now

## **PROJECTS**

#### Information Retrieval and Web Search Engine

Oct 2017 - Nov 2017

o Developed a web search engine to retrieve and search CNN news using Crawler4j and Apache Solr.

o Applied Page Rank for search, supported auto completion and spell correction features.

o Utilized jQuery and Materialize for front-end, PHP for back-end.

#### Collaborative Online Code Playground

Aug 2017 - Oct 2017

- o 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.
- o Created a code editor for multiple users to edit simultaneously by implementing Socket.io, Redis and ACE source.
- o Built a code executor service with Flask to compile and execute Java, C++, Python codes inside Docker Unix image.
- o Decoupled services using RESTful API and implemented load balance using Nginx to improve system throughput.

#### Kernel Development for Weenix OS

May 2017 - Jun 2017

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

#### Facebook Search, Web and Android Application

Jan 2017 - Mar 2017

- o Designed responsive websites for information retrieval of Facebook entities using Facebook SDK and Graph API.
- o 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.
- o 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

- o 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.
- o 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**

Carnegie Mellon University

Pittsburgh, PA

Master of Information Systems Management

May 2019