

# Hongzhao Zhu

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## SKILLS

### PROGRAMMING

Languages:

Java • Python • JavaScript • PHP  
C/C++ • MATLAB

Data Processing:

Hadoop • Spark • Spark Streaming  
Storm • Kafka • Pig

Datastore:

HDFS • HBase • Hive • Redis  
MongoDB • MySQL • PostgreSQL

Frontend:

Android • AngularJS • jQuery  
Bootstrap • WordPress • HTML/CSS

Backend:

Node.js • Express • Flask • LAMP

Other Tools & Services:

EC2 • RDS • S3 • Heroku • Git • Vim  
Docker • Maven • NPM • Markdown

## EDUCATION

### UNIVERSITY OF SOUTHERN CALIFORNIA

MS IN COMPUTER SCIENCE

Expected Dec. 2018 | LA, CA

Cum. GPA: 3.81/4.0

### UNIVERSITY OF ELECTRONIC SCIENCE AND TECHNOLOGY OF CHINA

BE IN COMMUNICATION ENG

Sept. 2012 - June 2016

Chengdu, China

Cum. GPA: 3.84/4.0

## LINKS

[github.com/huntingzhu](https://github.com/huntingzhu)

[www.linkedin.com/in/hongzhao-zhu](https://www.linkedin.com/in/hongzhao-zhu)

## COURSEWORK

### GRADUATE

Natural Language Processing

Web Technology

Algorithm Design

Database Systems

### UNDERGRADUATE

Data Structure and Algorithm

TCP/IP Protocol

Digital Signal Processing

## WORK EXPERIENCE

### DATA APPLICATION LAB, INC. | SDE INTERN

June 2017 – Aug. 2017 | Los Angeles, CA

#### Steam Game Recommendation System

- Collected the data of **2385** active players and **49140** games with a Multithreading **Web Crawler (Python)**. The obtained data was stored into **Hive**.
- Implemented a **Collaborative Filtering (ALS)** Game Recommendation Engine on **Apache Spark**. Then stored the results into **MySQL DB on AWS RDS**.
- Based on **Python Flask**, I launched a **Website on AWS EC2**, which shows the recommendation results for users if given Steam ID.

#### Real-time Financial Data Processing Pipeline

- Set up a **RESTful API** that allows Kafka Producer program to read the applicant data and push the streaming data to the **Kafka** Cluster.
- Built the **Storm Topology (Java)** to read the streaming data, process data and submit processed data to a Risk Evaluation API. Then stored the applicants' info and results into **HBase** Database.
- Deployed the project on the **Montana Cluster (9 nodes)**.

## INDEPENDENT PROJECTS

### CHAT ROOM APP (WEBSITE | DEMO)

May 2017 | Los Angeles, CA

- Description**: A real-time multi-user chatting app that allows **multiple users (2+)** to send text and images.
- Developed a **Node.js** server using **Express** framework and deployed it on **Heroku** platform.
- Set up real-time chatting sessions between multiple users by using **Socket.io**.
- Made use of **Redis** as the messaging system and stored user's profile and chatting session info into **MongoDB**.

### FACEBOOK SEARCH - FULL STACK (WEBSITE | DEMO)

Mar. 2017 | Los Angeles, CA

- Description**: Users can search Facebook users' / organizations' public albums and posts. This app also allows users to store and share the detailed search results on their own Facebook Accounts.
- Frontend**: Designed a responsive website with **AngularJS**, **Bootstrap** and **jQuery**.
- Backend**: Deployed a **RESTful API** on **AWS EC2**, which returns the search results with using **Facebook PHP Graph SDK**.
- Android**: Created an Android App (**Demo Video**) that realizes the same functions as the website.

### ONLINE NOTES APP (WEBSITE | DEMO)

Feb. 2017 | Los Angeles, CA

- Description**: A website based private notes app that allows users to manage notes and profile information on their own accounts.
- Frontend**: Designed a responsive website with friendly UI by using **Bootstrap** and **jQuery**.
- Backend**: The account, note and profile management system were implemented with **PHP**. Accounts data and notes data were stored into **MySQL** database on the cloud.