Xiaojie(Charles) ZHA

Objective Position: Full-time Software Engineer

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EDUCATIONS

New York University (NYU) New York, NY
M.S. in Computer Engineering, GPA 3.5 Expected May 2018
Relevant coursework: Data Structure & Algorithms, Database Systems, Machine Learning, Big Data Programming

Beijing University of Posts and Telecommunications (BUPT) Beijing, China
B.S. in Telecommunication Engineering, Queen Mary Univ. of London joint program, GPA 3.6 Jun 2016
Relevant courses: Web Programming, C Programming, Database Systems, Data Structure, Internet Protocols, Java Programming, 3D Graphic Programming, Software Engineering

SKILLS

- Experienced: Java, JavaScript, Python, MySQL, MongoDB, Angular.js, Node.js, Linux,
- Familiar with: C, C++, C#, PHP, multithreading, Spring MVC, Android, Redis, RabbitMQ, React, React Native, Hadoop, Tensor Flow, sklearn, Maven, AWS, Virtualbox, Docker, Nginx, Postman, Git

WORK EXPERIENCE

Software Developer / Intern at Li Creative Technologies, Inc. Jun 2017 – Dec 2017

- Designed the UI and front-end functionalities using **Angular.js** (HTML, CSS, JS) and **Bootstrap.js**
- Built the server using **Node.js** with **Express.js** frameworks, developing **RESTful API** for functionalities such as user registering, back-end translation processes calls, user database loading, and performance testing
- Used **MongoDB** as the database to store user's jwt token and users' self defined words and phrases
- Created a **Java multi-threads** program to process data in parallel, using **sockets** to communicate with Node.js
- Built the project into **JAR**, deployed onto **RHEL 7** server, setup with a single **bash** file using pm2 for monitoring

Web Developer Internship at New York Leather House Mar 2017 – Jun 2017

- Developed the company's mobile app using **React Native** with 4 sections, collaborating with UI/UX designers
- Improved the company website's front-end functionalities using **HTML**, Less, Javascript via Wix and Shopify

PROJECTS

Code Judgement System for Cooperative Programming (JavaScript, Python, MongoDB) Apr 2017 – May 2017

- Implemented a online code editor which supports multi-user editing using **Socket.io**, **Redis**, Cloud9 **ACE**
- Developed a single-page web app using **Node.js**, **Angular2**, **Auth0** and **MongoDB** for LeetCode-like coding
- Implemented a user-code executor service to compile and run user's code with **Docker** and **Flask**
- Refactored system throughput by decoupling services using RESTful API and set up **Nginx** load balancing

Real Time News Scraping and Recommendation System (JavaScript, Python, MongoDB) Mar 2017 – May 2017

- Implemented a data pipeline which scrapes and deduplicates latest news with **MongoDB, Redis** and **RabbitMQ**
- Built a single-page web application for users to continuously browse news with **React.js, Node.js, RPC, JWT**
- Designed and built an offline training pipeline for news topic modeling using **Tensor Flow** with python
- Deployed an online classifying service for news topic modeling using the trained model and generate news tags

Notification System for an Education Platform (JavaScript, MySQL) Apr 2017 – May 2017

- Designed a message module using **Angular** and **Bootstrap** for front-end, collaborating with UI designers
- Applied Google Cloud **SQL** as the backend database, implemented functions such as insert, update, delete data
- Kept user data and message data separately for mass messaging, in order to easily modify and delete messages
- Allocated different authority levels for admin and normal users, using **Lodash** for loadbalancing

Music Trends: Big Data Analysis of Contemporary Music (Scala, R, Pig Latin) Mar 2017 – May 2017

- Accessed millions of purchase records using **Hadoop** and plotted genres-related summaries on map with **R**
- Associated product reviews with emotion datasets to conclude characteristics of different genres using **Spark**
- Summarized shopping habits of music lovers using Amazon Review dataset to provide tailored ads

3D Modeling and Rendering of Lecturers' Avatars (C#) May 2015 – May 2016

- Captured the depth data of movement using Kinect Sensor for Windows, applied to 3D avatars using **Unity3D**
- Enhanced the detection of movements via actively ignoring trivial movements and providing samples using **C#**
- Located the screen and calculated the pointing direction to highlight the main part of the current slide

Trains Control and Train Station Notice Board Simulation Design (Java) Oct 2015 – Nov 2015

- Created a logistical simulator of train operations, developed the GUI using using **AWT**, **Swing** with NetBeans
- Assigned routes of trains from different train stations, optimizing routes for best performance on simulator
- Applied the Test-driven development within an Agile team and developed a set of test programs using **Junit**

Indoor Mobile Devices Locating and the Data Behind Them (Android, PHP, SQL) May 2014 – May 2015

- Implemented triangle centroid location algorithm to locate **Android** devices indoor using RSSI intensities
- Analyzed users' locations changes on **SQLite**, summarized moving paths and plotted traces on map using **PHP**
- Generated location related advertisements to the users and suggestions for mall arrangement to managers