# Xiaojie(Charles) ZHA

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#### **EDUCATION**

## • New York University (NYU)

New York, NY

M.S. in Computer Engineering

May 2018

Relevant coursework: Data Structure & Algorithms, Data Center and Cloud Computing, Big Data Programming

### • Beijing University of Posts and Telecommunications (BUPT)

Beijing, China

B.E. in Telecommunication Engineering with Management

Jun 2016

Relevant courses: C Programming, Web Programming, Database Systems, Data Mining in ERP systems, Data Structure, Mobile Internet, Artificial Intelligence, Internet Protocols

#### • Queen Mary University of London (QMUL)

London, UK

B.S. joint program in Computer and Electrical Engineering

Jun 2016

Relevant courses: Java Programming, 3D Graphic Programming, Software Engineering

#### TECHNICAL SKILLS

- Programming Languages: Java, Android, C/C++, C#, Python
- Scripting Languages: JavaScript (Angular.js, React.js, Node.js, Meteor.js, Bootstrap), HTML5, CSS
- Database Development: MySQL, SQLite, MongoDB
- Other: Linux CLI, AWS ec2, Hadoop, Pig Latin, Spark, Docker

#### EXPERIENCE

#### Software Developer/Intern at Li Creative Technologies, Inc.

Jun 2017 – Aug 2017

- Designed the web application for online translation using Node.js, Angular-cli, Passport.js and Python on AWS ec2
- Applied MongoDB to save user-customized translation pairs, which are loaded to improve translation results
- Accelerated the processing by separating server and database into two ec2 instances and provided authentication
- Provided API documents for customers, helped colleagues on the speech recognition product using JS and Python

#### Web Programmer Intern at VV Patchouli

Mar 2017 - Jul 2017

- Built the company's commercial website, coding Java Script, CSS and HTML using different platforms
- Switched the website to a new web host and rewrote the company SEO for better searching results
- Worked with copywriters, photographers, designers and marketing specialists to deal with technical problems

#### **PROIECTS**

# Web Design: A Leetcode-like Code Judgement System

Feb 2017 - May 2017

- Designed and developed a single-page web application using Node.js, Angular-cli and MongoDB for coding practice
- Built a user-code executor service to build and execute users' code with Docker and Flask
- Refactored system throughput by decoupling services using RESTful API and loading balancing by Nginx

## Music Trends: Big Data Analysis of Contemporary Music

Mar 2017 - May 2017

- · Associated product comments with emotion database and concluded the senses of different genres using Spark
- Accessed four 5GB purchase records datasets using Pig Latin and plotted genres-related summaries on map with R
- Summarized shopping habits of music lovers and provided tailored ads using Scala on Amazon Review dataset

#### **Online Notification System for Online Education Platform**

Apr 2017 - May 2017

- Deployed a Node.js application with messages' list, reply, star, delete, notify, group functions for admins and users
- Coded the database using MySQL on Google Cloud, using two-step update to make sure info synchronization
- Discussed needs and product outcome with PM and UI/UX designers, eventually delivered the product on time

#### **NYU Living: Online APP for House Renters to Find Roommates**

Feb 2017 - Feb 2017

- Established web server on Heroku with posting and searching functions using Node.js and online MongoDB mlab
- Built the client application using Meteor.js, capable to search by keywords, release date and times of view
- Collaborated with team members with different coding backgrounds and managed to complete ahead of time

## 3D Modeling and Rendering of Lecturers' Avatars

May 2015 - May 2016

- Captured the motion and voice of lecturers using C# with Kinect Sensor, applied them to 3D avatars using Unity3D
- Enhanced the detection of movements by 30%, through ignoring trivial movements and providing sample moves
- Obtained the pointing direction with Kinect 3D coordinates to detect the informative messages on lecture slides

## Indoor Mobile Devices Locating and the Data Behind Them

May 2014 - May 2015

- · Applied triangle centroid algorithm to locate the Android devices indoor using phone-obtained WIFI intensities
- · Analyzed users' location change on SQLite to summarize their common paths and plotted them on map with PHP
- Generated suggestions automatically for mall arrangement by marking popular areas and preferred ads positions

#### ADDITIONAL EXPERIENCE

• Assistant of IEEE International Conf. on Social Networks Analysis and Mining, leading a team of 6

Aug 2014

• Meritorious Winner award of COMAP Mathematical Modeling Competition

Jan 2015