

# Xiaojie(Charles) ZHA

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## EDUCATION

- **New York University (NYU)** New York, NY  
*M.S. in Computer Engineering, GPA: 3.50* May 2018  
Relevant coursework: Data Structure & Algorithms, Data Center and Cloud Computing, Big Data Programming
- **Queen Mary University of London (QMUL)** London, UK  
*B.S. in Computer and Electrical Engineering, GPA: 3.60* Jun 2016  
Relevant courses: 3D Graphic Programming, Image and Video Processing, Java Programming, Software Engineering
- **Beijing University of Posts and Telecommunications (BUPT)** Beijing, China  
*B.E. in Telecommunication Engineering with Management, GPA: 3.60* Jun 2016  
Relevant courses: C Programming, Data Mining, Web Programming, Digital Signal Processing, Database Systems, Data Structure, Mobile Internet, Wireless Network, Artificial Intelligence, Internet Protocols

## TECHNICAL SKILLS

- Programming Languages: Java, Android, C/C++, C#, Python, Scala
- Scripting Languages: JavaScript, angular.js, node.js, CSS, react, meteor, gulp, bootstrap
- Database Development: MySQL, SQL Server, MongoDB
- Big Data: Hadoop, Amazon EC2, Pig, Apache Spark, Docker, Cloudera, Hue, VMWare

## ACADEMIC PROJECTS

- **Music Trends: Big Data Analysis of Music (Scala, Java, Hadoop, Pig, Spark, R, SQL)** New York, NY  
*Course Project of Big Data Analysis* Mar 2017 - Present
  - Looking into purchase records and review datasets of Yahoo Music, Amazon, Last.fm via Pig, Spark (Scala), R.
  - Analyzing shopping habits of the different music genre lovers and provide corresponding ads recommendations.
  - Building a website to present results (in charts and diagrams) and provide professional insights.
- **Web Design: A Code Judgement System Similar to Leetcode (MongoDB, Javascript, Bootstrap)** New York, NY  
*Individual Course Project* Feb 2017 - Mar 2017
  - Design and developed a single-page web application for coding problems (Angular2, Auth0, Node.js, MongoDB)
  - Used an online mongodb system to store and check the saved questions and answers
  - Learnt how to share the project online using github and publish the web app via AWS
- **3D Modeling and Rendering of Lecturers' Avatars (C#, VS2015, Unity3D)** Beijing, China  
*Individual BUPT innovation project* May 2015 - May 2016
  - Captured the motion and voice of lecturers using the Kinect Sensor, applied them onto 3D using Unity3D
  - Enhanced the detection of movements of the lecturers and highlighted important points on slides
  - Scored 97 out of 100 (Top 10 out of 400 students) as the B.E. final project work
- **Trains Control and Train Station Notice Board Simulation Design (Java, NetBeans)** Beijing, China  
*Individual in-class project in one week* April 2016
  - Created a logistical simulator of train operations, including leaving, arriving and emergency stop
  - Assigned routes of trains from different train stations, optimizing routes for best performance on simulator
  - Designed GUI of the train control screens and the trains schedule board indicating departures of trains
- **Indoor Data Analysis of Mobile Terminal Trends (Android, JS, SQLite, PHP)** Beijing, China  
*Leader of a 5-member team* May 2014 - May 2015
  - Improved triangle centroid algorithm to locate mobile devices based on WIFI intensity for user behavior analysis
  - Conducted data mining of the large-scale database to trace and analyze user walking paths using SQLite
  - Advised building management based on results and analysis of walking traces, enhancing operational efficiency
  - Placed 1st out of 80 in the 2015 BUPT Creative Award competition

## HACKATHONS

- **NYU Living: Online APP for House Renters to Find Roommates (MongoDB, node.js, npm, pug)** New York, NY  
*HackNYU 2017 Group Project* Feb 2017
  - Established the web app with posting, listing and searching functions using node.js and MongoDB
  - Built the website interface by setting the general layouts, style of tables, fonts, boxes in css and pug (jade) files
  - Collaborated with team members from a variety of different background and completed the project ahead of time

## ADDITIONAL EXPERIENCE

- Operation Intern in Kaixin Corporation Mobile Game Department Dec 2013
- Assistant of IEEE International Conf. on Social Networks Analysis and Mining, managing a team of 6 Aug 2014
- Meritorious Winner award of Mathematical Contest in Modeling Competition Jan 2015
- Web Programmer Intern at New York Leather House Mar 2017