

Wenbo Song

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Education

- **Columbia University** New York, NY
 - *M.S. in Electrical Engineering* *Aug 2017 - Expected Dec 2018*
 - Related Course: Big Data Analysis, Neural Networks & Deep Learning, Algorithms, Content Distributed Network
- **Beijing University of Posts and Telecommunications (BUPT)** Beijing, CN
 - *BSc(Eng), BUPT & BSc(Eng), QMUL (Queen Mary University of London)* *Sep 2013 – Jun 2017*
 - Joint Bachelor Programme: Telecommunications Engineering with Management
 - Related Course: Machine Learning, Database, Data Structure, Software Engineering, Internet Protocols, Advanced Network Programming, Internet Applications

Experience

- Software Engineer Intern, China Samsung Telecom R&D Center *Feb 2017 – Jun 2017*
 - Wrote Python program to test the result of training set to get the accuracy of the audio recognition algorithm.
 - Responsible for extracting certain messages in sentences, using python programming, for data analysis.
- RA, Network Technology Research Center, Chinese Academy of Sciences. *Jul 2016 – Oct 2016*
 - Wrote program to implemented and Evaluated of SDN Rule Management Algorithm--- OpenRIB
 - Used mininet to generated synthetic topologies of next generation network, through C++ programming and Gurobi to locate the optimal value based on the two existing algorithms and the OpenRIB.
 - Guaranteed the performance of the C++ program, with 600,000 variables and 300,000 constraints.

Selected Projects

- **Recommendation System for Yelp** *Sep 2017-Oct 2017*
 - Designed a food recommendation system based on a 2.2 gigabytes dataset provided by yelp.
 - Used Spark Python API to do the data clean. Called MLlib library to achieve the system based on Collaborative Filtering Recommendation Algorithms.
- **JAVA Network Programming Project** *Jun 2017 – Aug 2017*
 - Designed a JSP page as front-end web page with IntelliJ and an android app with android studio for students who can use them to search retired teachers in the city as private tutors.
 - The system realized login, sign-up, viewing teachers' details and sending notice for teachers and students.
 - Implemented the MVP architecture, called Async Http Client library to execute HTTP requests, used AsyncHandler to asynchronously process part of the HTTP responses for a better performance.
 - Used MySQL and PHP to query the database on Amazon AWS, parsed the data in JSON format.
- **Android Application for Wireless Communication** *May 2015 – Sep 2016*
 - Developed an Android application, which could encode/decode and transmit image and word. Used Android Bluetooth API to finish the search, connection and data transmission between mobile and Bluetooth.
 - Called Baidu map API to get location information and looked up other group members' location in real-time.
 - The system realized sharing of multimedia message between mobile phones in 3km without using the network
- **FTP Proxy** *Sep 2015 – June 2016*
 - Developed a proxy between FTP server and client to handle the request, responses and transfer files.
 - Used C++ language on Ubuntu VM to implement the proxy and use Wireshark to analyze the packets.

Skills

- **Language:** Java, JavaScript, Python, C++, Android, SQL, JSON, HTML
- **Frameworks:** Spark, Hadoop, Servlet, JSP, RMI, Spring, Junit, Maven, Javadoc, Tomcat, Hive, Hbase
- **Skills:** Mac OS, Linux/Unix OS, AWS, Docker, IntelliJ IDEA, Android Studio, TCP/IP Sockets, Wireshark, Docker