Haiyu Wan

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EDUCATION

Washington University in Saint Louis, School of Engineering & Applied Science	Saint Louis, Missouri
Master of Computer Science & Engineering	Jan. 2019 – Jan. 2021
Lanzhou University	Lanzhou, China
Bachelor of Science	Sep. 2013-May.2017

CERTIFICATES

Washington University in Saint Louis	Saint Louis, Missouri
Graduate Certificate in Data Mining & Machine Learning	Jan. 2021

TECHNICAL COMPETENCIES

Theories: Advanced Algorithm, Data Structure**,** Object-Oriented Software, Machine Learning, Cloud Computing, Data Mining, Database management,

Computer Skills: Java, C++, Python, Kotlin, Spring Boot, Linux, HTML, CSS, PHP, JavaScript, Linux, Amazon EC2, AWS, MySQL, Mongo Db, Spark, Hive, Hadoop, Git/GitHub

WORK EXPERIENCE

Gansu Wanwei Information Technology Co. Ltd.	Gansu, China
Software Engineer Intern (Full Stack)	Aug. 2018 – Dec. 2018

- Designed and implemented the College Student Course Selection system and create UI.
- Built and designed the Student component, Subject component, Authentication and user management component, with Abstract factory Pattern, Singleton Pattern, Observer Pattern, Adapter Pattern, and other **System Design Patterns.**
- Designed and implemented the relational database table with **MySQL**.
- Implemented **REST API** using **Spring Boot framework** to support request from sponsored events.
- Built the interface of each user with **JavaScript**, **PHP, jQuery, HTML, CSS**.

China Telecom Corporation Limited.	Gansu, China
Software Engineer Intern (Data)	May. 2019 – Sep. 2019

- Developed a **pipeline operation** for data pre-processing by using **NumPy, Pandas in Python**.
- Designed geo-location clustering by implementing k-means in **Spark** and deployed to **AWS EMR** with S3 bucket to handle big data of telecom in Lanzhou.
- Extracted operation feature relationships using Hive. Visualized and analyzed the clustering results and target area's operation features with the team using Python **Plotly and Tableau.**

PROJECT EXPERIENCE – WASHINGTON UNIVERSITY IN ST. LOUIS

Android App for Kanban
- Designed and built the Android Application of Kanban with **Kotlin** and **NoSQL database firestore firebase**.
- Added the Gesture processor, Animation and Imagine processor API to make the application easier to manipulate for users.
- Use MVVM pattern to separate view and application algorithm, which allow easy revolution in the future.
- Implemented function of view location in map by using Google Map API.

Chat room website
- Built Multi-room Chat Server with **Node.js** and **AWS EC2 Instance**.
- Implemented different APIs to make user create and join different chat rooms and let user to chat in their channel in real time by using **Node.js and Socket.io**.
- Designed and implemented the Database with MySQL to store user accounts and history of message.

Database Management
- Built database systems with **Java** and implemented basic database operations and persistence.
- Implemented functions in **SQL database** and NoSQL database **Mongo DB**.