

ZEHONG LAN

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EDUCATION

University of Illinois at Urbana-Champaign (UIUC)

Master of Engineering in Electrical & Computer Engineering

Aug 2022 – May 2024

GPA: 4.0

Wuhan University

Bachelor of Accounting

Sep 2017 – Jun 2021

GPA: 3.6

WORK EXPERIENCE

Wuhan Hangtianyuanjing Corp. | Software Development Engineer Intern

May 2022 – Jul 2022

- Developed real-time tracking software based on drone location on android device using **Java**, updated data in **MySQL** and launched new features according to users need
- Completed unit tests using **JUnit**, fixed bugs in application and improved application performance

Kuaishou | Data Science Intern

Nov 2021 – Jan 2022

- Operated AB test for new features of Kuaishou app using **Hive** and **Python Statsmodel** and performed significance testing through **Python Numpy** and **Scipy**
- Extracted core indicators through **Hive** and **Spark**, explored cause and effect relationships using **Python Sklearn**, **Pandas** and **PyTorch** and recommended R & D department for improvement
- Shaped portraits based on large encrypted user data sets via **machine learning models** using **Python Sklearn**, **Pandas**

PROJECT HIGHLIGHTS

Restaurant and Dish Recommendation Application

Aug 2022 – Dec 2022

- Established a restaurant search application to show personalized results based on constraints and sorting from customers using **Java Spring Boot**, **MySQL** and **MyBatis**.
- Combined datasets in Yelp and data crawled from other public sources, and executed queries with triggers and a new stored procedure to guarantee the accuracy of the outputs using **SQL**, persisted the data in **MySQL**.
- Integrated with **APIs** to allow customers to upload comments with pictures.
- Built fronted web pages in **JavaScript** and **HTML** and connected the frontend with the back-end coding in **Spring Boot**.
- Advanced Yelp by adding the evaluation of the dish dimension by rates and comments

Web Mapping Application Based on Google Maps

Apr 2022 – Jul 2022

- Implemented a Map Rastering application to generate images according to the departure and the destination based on **Google Maps Java API** using **Java Spark**
- Constructed computer graph to reflect intersections and roads in the maps using **XML** and **SAX Parser**
- Calculated shortest viable path between the departure and the destination using **Dijkstra Algorithm**
- Developed application based on **Apache Maven** and completed basic API tests in **JUnit** testing framework and performed continuous operations on **GitHub Actions**

Alarm Clock Web Application

Jul 2021-Nov 2021

- Founded alarm clock based on timer, persisted data in **MySQL** and displayed user's records through graphs in webs using **Visfire.Charts**
- Identified the user's current behavior through **Threads**, issued warning if any process activity not in allowed list was found and informed customers of feedbacks and suggestions by interacting with learning records
- Constructed frontend web pages in **Html**, **CSS**, **JSON** and **Bootstrap**, developed backend **Web API** endpoints and connected the frontend with backend through **jQuery**

Click-Through Rate (CTR) estimation and optimization model based on Taobao

Feb 2020-May 2020

- Optimized nearly a million pieces of desensitization data disclosed by Ali, analyzed correlation among factors and filtered valid features using **Python DataCleaner**, **Numpy** and **Pandas**
- Eliminated uneven sample distribution by **SMOTE**, introduced **machine learning** models including logistic regression, random forest model and support vector machine for training through **Python Sklearn**, **Pandas** and **Matplotlib**
- Built model effect evaluation system by calculating confusion matrix and final harmonic indicator
- Merged different algorithms to restructure a better model, enhanced accuracy by 20% and recall rate by 15%

TECHNICAL SKILLS

- Programming Languages: Python, Java, C++, C#, SQL.
- Frameworks/Tools: XML, SAX Parser, Spring Boot, Java Spark, JavaScript, jQuery, Hive, MySQL, Maven, Pytest, Junit, GitHub Actions.