Zonghui LIU

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EDUCATION BACKGROUND

Wuhan University of Technology   Wuhan, China
B.Eng. in Computer Science &Technology   Sep 2017-Jun2021
- **GPA:**86.93/100

Imperial College London   London, UK
MSc. in Applied Computational Science and Engineering   Oct 2021-

I have learned: Modern Programming Methods(Python), Computational Mathematics, Modeling and Numerical Methods, Advanced Programming(C++) and Parallel Computing(OpenMP and MPI)

Overall: A

The courses I will learn in the near future: Optimization and Machine Learning.

INTERNSHIP

The Chinese Software International Co., Ltd.   Ningbo, China

Intern of Data Analysis Department   Jul 2020-Sep 2020

Responsibilities:
- Pre-processed over 210,000 social housing rental data items during the COVID-19 epidemic, including data collection, cleaning and deduplication
- Designed the storage structure of over 170,000 social housing rental data and compressed the storage capacity to improve the work efficiency in data analysis
- Analyzed the routes and trends of COVID-19 and developed a dynamic epidemic map.
- Mined potential relationship between the epidemic trend data and housing rental data

Achievement: Recommend suitable alternatives for tenants

RESEARCH EXPERIENCE

Analysis and Monitor of Abnormal Urban Traffic Flow Based on Wavelet Analysis

Advisor: Prof. Liu Xinwu   Jun-Oct 2019
- Pre-processing of the trajectory and speed data (overall 570,000) of taxis in Beijing in Sep 2019
- Modelled the Beijing transportation network and used Matlab to implement wavelet analysis algorithms
- Calculated the misjudgment rate and missed judgment rate based on historical records

Database System Storage Architecture Optimization

Advisor: Prof. Du Yajuan   Mar 2019- Jun 2021
- Read literatures and implemented the existing data replacement algorithms in RDBMS
- Used more than 100,000 Tencent picture data to conduct experiments and analyzed the advantages and disadvantages of the existing data replacement strategies to improve the data replacement strategy
- Used C++ programs in local system to simulate data replacement strategy based on B+ tree structure

COMPETITION and Awards
Central China Invitational Competition of MCM (First Prize in Central China)   May 2019

SKILLS AND CERTIFICATE
- **Computer language**: C(proficient), Python(proficient), C++(proficient), Java, MATLAB, Verilog, COMSOL, MatDEM, OMNeT++, Android Studio
- **TOEFL:**101(R29/L28/S22/W22)