

# Yuqi Zhao

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## EDUCATION

### Beijing University of Posts and Telecommunications

*Sept. 2020 – June. 2023(Expected)*

Master of Engineering, Computer Science and Technology

Advisor: Prof. Xiaohong Huang

- GPA: 85/100
- Award: Outstanding Postgraduate student, First-class scholarship.

### Queen Mary University of London

*Sept. 2016 – June. 2020*

Bachelor of Science (Engineering) with First Class Honors

- Joint Bachelor Degree Programmes with Beijing University of Posts and Telecommunications

### Beijing University of Posts and Telecommunications

*Sept. 2016 – June. 2020*

Bachelor of Management, E-Commerce Engineering with Law

Minor in Internet of Things Engineering

- GPA: 86.13/100 (12/180)
- Relevant Courses: Data Structures (91), Internet Protocols (92), Security and Authentication (95).
- Award: Outstanding Undergraduate, Second-class scholarship (2017, 2019),

## RESEARCH EXPERIENCE

### Asynchronous-based Federated Multi-task Learning (Master Dissertation)

*Dec. 2021 – Now*

Federated learning enables training devices to learn a shared model together while keeping all training data on the training devices to protect data privacy. **(Paper in writing)**

- Mitigating model accuracy degradation due to data heterogeneity through multi-task learning;
- Mitigating the problem of excessive time consumption due to device heterogeneity by asynchronous training

## PROJECT EXPERIENCE

### Federated Learning System Based on Consortium Chain

*May. 2021 – May. 2022*

Based on the data privacy protection of federated learning, combined with the decentralization, data immutability, and user authentication of consortium chain, design and implement a reliable and secure federated learning system.

- Coordinate work as a team leader;
- Build Consortium chain distributed;
- Development of Consortium chain chaincode and upper layer interface;
- Combination of federated learning and Consortium chain.

### Active Measurement System Based on IPv6

*Dec. 2020 – May. 2021*

Active measurements (e.g., delay, jitter, path measurements, etc.) are performed by probe devices to enable the assessment of current IPv4/IPv6 networks.

- Coordinate work as the team leader;
- Implement the path measurement function;
- Implements the probe authentication and control function;
- Implement probes scheduling function.

### A Mobile App for Collecting Network Measurement Data (Undergraduate Final Project)

*Dec. 2019 – May. 2020*

Supervisor: Gareth Tyson (QMUL)

An Android App that can measure the user's surrounding network conditions and display the results to the user in data visualizations.

- Measure basic network information, bandwidth, and delay;
- Test device connectivity, and DNS resolution;
- Implement data visualization.

## TEACHING EXPERIENCE

### Teaching Assistant for Internet Application

*Mar. 2021 – Jul. 2021*

This course is an all-English course, which mainly explains application layer protocols and cutting-edge knowledge.

- Implement and Display experimental demo (FTP client and server by C);
- Answer and guide students to learn and write relevant codes.

## SKILLS

- Python, Java, C, MySQL, Pytorch, Docker, and IELTS (6.5).