

Xueqi Li

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Education

Beijing Jiaotong University (BJTU)

Sep 2020 – Present

B.Eng. in Software Engineering, Expected June 2024

Beijing, China

- GPA: **3.87/4.0**, grade: **90.9/100**, ranking: **1/183**, WES GPA: **3.96/4.0**.
- Core courses: Object-Oriented Programming, C++ Programming, Principles of Computer Organization, Data Structure, Computer Network, Database System, Operating System, Machine Learning.

Research Experience

Indoor Multi-Source Fusion Localization

Aug 2022 – Sep 2023

Research Assistant, Supervisor: Prof. Ruipeng Gao

Beijing, China

- Implemented smartphone Inertial Measurement Unit feature engineering and LSTM for vehicle speed inference. Achieved 22.3m localization error in 35-minute driving without GNSS.
- Proposed multi-sensor data fusion and Transformer-based speed inference model. Devised stair detection algorithm for step and floor estimation. Achieved <10m localization error in indoor pedestrian tracking.

Publications

- **Xueqi Li**, Kejia Li, Jiayao Liu, Ruipeng Gao, “Smartphone-based Indoor Pedestrian Tracking via Transformer”, Submitted to *IEEE International Conference on Computer Supported Cooperative Work in Design*, 2024.

Work Experience

NetEase Youdao, Inc.

Sep 2023 – Present

Backend Development Intern, Advertising Product R&D Team

Beijing, China

- Develop advertiser and KOC features for Ads KOC platform, implementing over 20 complex APIs.
- Implement MySQL-Elasticsearch(ES) incremental data sync. Reduce interval and CPU load by 70%.
- Implement ES partial update using Painless Script for data consistency without performance loss.
- Establish hierarchical ES fields and utilize aggregations for KOL search. Improve pre-sale success rate.

Projects

Home Monitoring System 📄 github.com/xueqili02/home-monitoring-system

Jul 2023

Project Leader & Backend Developer

- Implemented real-time video streaming of network cameras using RTMP, nginx, and ECS.
- Integrated 8 CV models including dynamic face recognition for security and intrusion detection for alert.
- Optimized model load, frame extraction, picture processing. Reduced system response time by 20%.
- Developed gesture-based webpage navigation for disabilities, supporting self-defined gestures.

DBMS

Apr 2022 – Jun 2022

Developer

- Developed SQL Parser, Executor, Backend, pipelines for SQL execution, data storage, and visualization.
- Implemented PK and FK checks for data integrity. Achieved table join based on nested loops.
- Implemented LRU for buffer pool management to refresh unused pages and improve cache hit ratio.

Skills

- **Programming Languages:** Java (Proficient), Python, C/C++, SQL, JavaScript.
- **Frameworks:** PyTorch, Spring, Spring Boot, Django, MyBatis.
- **Softwares and Tools:** MySQL, Redis, Elasticsearch, Lucene, Linux, Git, Docker, Shell, JMeter.

Honors and Awards

National Scholarship (Top 0.2% students nationwide), twice.

Dec 2022 & Dec 2021

First-Class Academic Scholarship (Top 3% students in the major), twice.

Dec 2022 & Dec 2021

China College Student “Internet +” Competition, Third Prize in Beijing.

Aug 2023

IPIN Competition Track 6 - Smartphone on vehicle, Runner-up.

Sep 2022

Microsoft Edge Add-on Contest, Innovation Practice Award, SearchingTAB.

Aug 2022