

Yan Qian

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EDUCATION

PhD in Computer Science (Supervisor: Dr.Ligang He)

Dec 2022 - Nov 2026 (expected)

Route: Developing Graph-based Deep Learning Frameworks in Distributed Systems

The University of Warwick, Coventry, UK

Master of Engineering in Computer Science

Sept 2018 - Jul 2022

The University of Warwick, Coventry, UK

PGA: Second Class, Upper Division

WORK EXPERIENCE

Software Engineer Intern, Hundsun Technologies Inc.

Summer 2020

- Developed the backend functionality of business platform with VC++ and Java.
- Design the frontend display functionality of business platform with JavaScript.

Tech tools used: Java, C#, JavaScript, Spring Boot, Maven, Navicat

Software Engineer Intern, Fresh Supply Chain Technologies Inc.

Summer 2019

- Develop company front-end UI based on Bootstrap and JavaScript.
- Implement API to transfer the product data from database to front-end.

Tech tools used: HTML 5, JavaScript, Bootstrap

PROJECTS

Sentiment Analysis to Predict Petition Success

- Used data mining method to collect historical petitions' record and Twitter data relevant to the petition.
- Created the graph model, each petition performs as a vertex and then finds the weight of relevant historical petitions linked with.
- Used sentiment Analysis to parse and classify the Twitter data so that it could guide the trend of petitions.

Tech tools used: Python, GitHub, SSH, Scikit-learn, Multi-class classification, sentiment analysis, LSTM

Effectively Quantifying Role Similarity Based on Automorphism

- Performed data mining and analyzed data on the artificial network.
- Performed structural similarity measure, which used graph matching algorithm to test the accuracy and the efficiency of the whole measurement procedure.
- Improved the existing matching method to optimize and get the most accurate and efficient similarity measure.

Tech tools used: C, bash, graph matching algorithm

Predict the Buying and Selling of Derivatives based on Machine Learning Algorithm

- Created the Django model which used to perform as the programming framework.
- Implemented the predictive linear regression model based on supervised learning.
- Developed the web UI which used API to transfer the background data to the front-end and visualize the data.

Tech tools used: JavaScript, Python, Django, Git, Bash, BootStrap, regression

OpenGL Based Hanoi 3D Model visualization

- Used C++ with OpenGL API to create the Hanoi tower.
- Developed the iterative algorithm which performed the solution of Hanoi tower with varied ranks.

Tech tools used: C++, OpenGL

Karman Wave Parallelization

- Implemented Memory Passing Interface (MPI) commands for the fluid dynamic karman code, and analyzed how the performance is improved based on the level of MPI.
- Based on the MPI parallelism, then develop OpenMP as the hybrid approach to directive with various of threads per processor. The goal is to analyze whether the number of threads could affect the efficiency of the Karman wave.

Tech tools used: C, OpenMP, MPI

TECHNICAL SKILLS

- **Programming:** Java, Python, C, C++, C#, JavaScript, Haskell
- **Machine Learning:** Scikit-learn, Weka, PyTorch, Tensorflow
- **Others:** Graph Neural Networks, Federated Learning, High-Performance Computing, Data Analytics, Git, MySQL, Hadoop, OpenGL, OpenCV, OpenMP, MPI, Spring Boot, Maven