Tianlei Shi

Pacific Court 209C, 15 Assembly Passage, Whitechapel, London South, E1 4EY, UK
+44 7536 926746 • tianlei.shi.22@ucl.ac.uk • https://github.com/Stanley-Yi

Education

MSc Scientific and Data Intensive Computing, University College London **2022 – now**

Notable Modules: Techniques of High-Performance Computing, Numerical Methods, Information Retrieval and Data Mining, Research Computing with C++, Research Software Engineering with Python, Machine Learning with Big Data

BSc Information and Computer Science, Xi'an Jiaotong-Liverpool University **2018 – 2022**

Grade: First Class
Notable Modules: Advanced OO Programming, Software Engineering, Technologies for E-Commerce, Databases, Data Structures, Complexity of Algorithms, Computer Systems Security
Notable Achievements: Top 5% in my major, won 3 scholarships (including the Academic Achievement Award) and obtained a volunteer certificate (volunteered more than 50 hours)

Work Experience

Computer Vision Algorithm Intern, Chinese Academy of Sciences, Suzhou **June 2021 – Nov 2021**

- Provided algorithm support for an automatic restaurant settlement system. Processed daily images of the restaurant's dishes and trained and optimised the model to make the average detection accuracy 99.7%.
- Built a knowledge graph that contains more than 2000 dishes and their corresponding ingredients and nutrition composition and implemented an interface to connect it with project APP to provide data support.
- Carried out research into food recommendations and designed a simple food nutrition recommendation system based on the knowledge graph.

Research Assistant, Xi'an Jiaotong-Liverpool University **Sept 2020 – June 2022**

- Conducted blue-green algae research based on area estimations and semantic segmentation algorithms, including a deep learning method, binocular camera method and monocular camera method, and performed the detection of blue-green algae and hazard assessments.
- Applied object detection algorithms in a water environment and the algorithm was pruned and deployed in edge equipment, which was loaded on an unmanned surface vehicle to assist with obstacle avoidance.
- The project won 6 awards (including 3rd prize in the 12th China University Student Service Outsourcing Innovation & Entrepreneurship Competition) and related results were published in the *Journal of Physics: Conference Series*.

Extra-Curricular Activities

Project - Overseas Education Service Webpage, Xi'an Jiaotong-Liverpool University **Apr 2022**

- Assigned work to team members and managed this project as a team leader. Determined to commercialise the studying abroad service after market and business analysis.
- Responsible for developing webpages, including functions of sign-in/sign-up, order enquiries and user profiles, and all desired functions were implemented under XAMPP environment.

ChinaVis 2020 Visual Analytics Challenge, ChinaVis **June 2021**

- Responsible for processing, analysing and modelling air pollution data and assisted in visualising results using a model.
- As the first team of university to compete, we won the honourable mention award.

Project - VR Karaoke, Xi'an Jiaotong-Liverpool University **Feb 2021**

- Worked as a developer in a Scrum team to create a user singing function for VR Karaoke, which included a singing function (e.g., recording, playing and saving audio), voice noise reduction and sound reverberation.
- Participated in writing the software requirement specification and project reports.

Kaggle Competitions, Kaggle **Jul 2020**

- Participated in the Kaggle competition of 'House Prices: Advanced Regression Techniques' and 'Expedia Hotel Recommendations' as team leader and ranked top 4% and top 6% respectively.
- Participated in an in-class competition on my Big Data Analysis course - scored 1.0 and ranked in the top 1%.

Skills & Interests

Programming Languages: Python, Java, PHP, MySQL, HTML, C/C++, C#
Tools: Latex, Linux, git, neo4j
Languages: English (fluent), Mandarin Chinese (native)
Interests: studying violin for 16 years, swimming and gym work