

EDUCATION

- **University College London** 09.2022 – 09.2023
- Expected Distinction, MSc. in Computer Graphics, Vision and Imaging
 - Current modules: Computer Graphics (90%), Image Processing (93%), Machine Learning (ML) for Visual Computing (74%), Acquisition and Processing of 3D Geometry (85%), Inverse Problems in Imaging (80%), Machine Vision (95%), Virtual Environment (80%), and ML in Medical Image (87%).
 - Image Processing oral project (93%): implemented a real-time seamless cloning based on the Poisson image editing and proposed a weighted texture flattening algorithm.
 - Computer Graphics project (93%): path tracking using multiple importance sampling and motion tracking.
 - ML for Visual Computing project (89%): implemented and explored the gradient-based neural network attack approach, backpropagation in convolutional neural network matrix form, and various unsupervised generative models on the CelebA-HQ dataset.
 - Seminar review project (88%): mixed reality remote collaboration with eye gaze and hand gestures.
 - Acquisition and Processing of 3D Geometry projects (85%): implemented and explored iterative closest point algorithm with point-to-point, and point-to-plane in different subsampling strategies, angle initialisation and global registration effects. mesh smoothing with spectral analysis and explicit & implicit diffusion flow-based methods.
 - Seminar essay (87%): What are the main issues involved in creating accurate hands in virtual reality? [\[pdf\]](#).
- **The University of Birmingham** 09.2021 – 09.2022
- Distinction. MSc. in Artificial Intelligence and Machine Learning.
 - Relevant modules: Neural Computation (84%), Mathematical Foundations of AI & ML (83%).
 - Seminar review project (90%): deep learning-based 3D human pose estimation from images/videos.
 - Neural Computation project (80%): semantic segmentation of cardiac magnetic resonance (CMR) images.
 - Degree project: a region of interest (ROI) anomaly detection method in chest x-ray screening based on adversarial screening: a novel ROI anomaly detection algorithm trained by normal data only. Proposed a novel loss function, making the algorithm more focused on pathological information and more robust to noise [\[pdf\]](#).
 - University of Birmingham CVPR Workshop 2022: presented papers and ideas relevant to the final project.
- **The University of Essex** 11.2017 – 06.2021
- BSc. in Electronic System Engineering. Class I in the final year, overall Class II.1
 - Final year project: Image classification in deep learning [\[pdf\]](#)
 - Reviewed several significant modern convolutional neural networks. Produced a comprehensive empirical analysis on the effectiveness of optimisers, data augmentation, dropout, and batch normalisation.
 - Created a GUI to visually compare results from different CNNs and classify photos in real-time.
- **Northwest University** 09.2017 – 07.2021
- B.Eng. in Electronic Information Science and Technology
 - 79% in the first three years, first class in the last year of The University of Essex. First-class scholarship.

PROGRAMMING CONTESTS

- **Silver Medallist**, ACM-International Collegiate Programming Contest Asia-East Continent Final [\[pdf\]](#) 2019
- Top 2% among > 3000 teams in ACM-ICPC East Asia
 - Obtained 4 silver medals in ACM-ICPC and CCPC regional contest [\[2, 3, 4\]](#)
- **Fifth Place & Gold Medallist**, Provincial Collegiate Programming Contest of China [\[pdf\]](#) 2021
- Coach and competition captain. 5th place out of nearly 100 teams.

CAREER EXPERIENCES

- **Instructor** on International Olympiad in Informatics training camps 12.2019 – 10.2021
- Official instructor at Northwest University, China; freelancer at High School of RUC (top school in Beijing)
 - Taught >200 students, >10 won 1st prizes in National Olympiad in Informatics in Provinces ([NOIP](#)).

- Taught proof of algorithms and competition-level exercises in graph theory, combinatorial mathematics, game theory, dynamic programming and data structures.
 - Among the 6 students at High School of Renmin University, 4 students won the first prize in NOIP, 3 won gold, silver and bronze medals in the Asia-Pacific Informatics Olympiad 2020 & 2021, and 2 went into the China national junior Olympiad team. Lixi Ye won second place in the NOIP2021 junior ranking nationwide.
- **Student Coach** of Algorithm Society, Northwest University 09.2019 – 07.2021
- Organised International Collegiate Programming Contest programming training for the society
- **Video Blogger** on [Bilibili](#) (a YouTube-like Chinese video-sharing website) 01.2018 – present
- Share tutorial videos of algorithms in Machine Learning & Computing Theory. 200+ videos & 2,000+ fans

SCHOLARSHIPS & AWARDS

- **Top 29th**, Pawpularity Contest, Kaggle 2022
- **Excellent Minister** of the Student Union, Northwest University 2019
- **National prize** for Voluntary Work in Rural Education, Northwest 2018
- **School-level First Prize**, China College Entrepreneurship Competition 2018
- **School-level Third Prize**, China College 'Internet+' Innovation and Entrepreneurship Competition 2018