# Binglun Wang ucabbw5@ucl.ac.uk +44 (0)7724 807 306 William Goodenough House, London WC1N 2AN

# **EDUCATION**

# > University College London

09.2022 - 09.2023

- Expected Distinction, MSc. in Computer Graphics, Vision and Imaging
- Current modules: Computer Graphics (90.35%), Image Processing (93.36%), Machine Learning (ML) for Visual Computing (89%), Acquisition and Processing of 3D Geometry (85%), Inverse Problems in Imaging (85%), Machine Vision (94.5%), Virtual Environment, and ML in Medical Image.

## > 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 1<sup>st</sup> 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

$\triangleright$	Excellent Minister of the Student Union, Northwest University	2019
>	National prize for Voluntary Work in Rural Education, Northwest	2018
$\triangleright$	School-level First Prize, China College Entrepreneurship Competition	2018
$\triangleright$	School-level Third Prize, China College 'Internet+' Innovation and Entrepreneurship Competition	2018