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EDUCATION

- **University College London** 09.2022 – 09.2023
  - Distinction, MSc. in Computer Graphics, Vision and Imaging
  - Ranking & award: Top 5% in 30; best thesis honourable mention.
  - Thesis supervised by Prof Niloy Mitra: Instant-NeRF2NeRF: edit neural radiance field in seconds [link].
  - Relevant modules: Computer Graphics (90%), Image Processing (93%), Inverse Problems in Imaging (80%).
  - Other relevant module projects:
    - Machine Learning (ML) for Visual Computing project (89%): explored the neural network attack, backpropagation in CNN matrix form, and various unsupervised generative models;
    - Acquisition and Processing of 3D Geometry projects (85%&86%): explored point-to-plane point cloud registration; mesh analysis and denoise with spectral analysis, and implicit diffusion flow-based methods;
    - Virtual Environment essay (87%): Discuss issues in the characters' hand avatar and pose estimation in virtual reality and propose potential solutions [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%).
  - Other relevant module projects: deep learning-based 3D human pose estimation from images/videos (90%).
  - Thesis supervised by Prof Hyung Jin Chang: Anomaly detection based on adversarial screening [pdf].
- **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 supervised by Prof John Gan and Prof Jun Feng: Image classification in deep learning [pdf].
- **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.

PUBLICATION

- **Wang, B.**, Dutt, N.S. and Mitra, N.J., 2023. *ProteusNeRF: Fast Lightweight NeRF Editing using 3D-Aware Image Context*. **I3D2024**. [paper] [project page].

RESEARCH EXPERIENCES

- **Research Assistant** at University College London 05.2023 – present
  - Work with Prof Niloy Mitra at Smart Geometry Processing Group to explore 3D/4D editing from videos.
  - Work with Prof Raymond Dolan and Dr Kevin Li at Max Planck UCL Centre to explore the computational principles of human intelligence - "intuitive physics" using machine learning methods.
- **Research Assistant** at University of Cambridge 10.2023 – 1.2024
  - Work with Dr Fangcheng Zhong to explore 3D hybrid semantic representation.

OTHER EXPERIENCES

- **Chair** of Data Science Society at Goodenough College 09.2023 – present
- **Coach** of international programming contest teams 12.2019 – 10.2021
  - The team of Northwest University for ACM-International Collegiate Programming Contest (ACM-ICPC)
  - The team of High School Affiliated to Renmin University of China for The Olympiad in Informatics
  - >10 won 1st prizes in National Olympiad in Informatics in Provinces; 2 won gold and silver medals in the Asia-Pacific Informatics Olympiad 2020 & 2021 and joined the China national junior Olympiad team.
  - Taught modules: graph theory; number theory; game theory; dynamic programming and data structures.
- **Silver Medallist**, ACM-ICPC Asia-East Continent Final [pdf] 2019
  - Rank 2% among > 3000 teams
  - Team leader. Obtained 4 silver medals in total in ACM-ICPC regional contests [2, 3, 4]