

Zhishuo Liu

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Education

Imperial College London, MSc in Applied Computational Science and Engineering Sept 2024 – Sept 2025

- Distinction expected, GPA: 71.28/100

- Relevant Courses: Numerical Methods, Machine Learning, High Performance Computing

University of Birmingham / Jinan University, BSc in Information and Computing Science (Dual Degree) Sept 2020 – June 2024

Graduated thesis: Efficient Mesh Reconstruction via Sparse Gaussian Splatting

<https://github.com/zhishuoliu/SuGaL1>

- Graduated with First Class Honours (Top 13%)
- GPA: 3.92/4.25 (6/66); Comprehensive Rank: 2/66

Experience

Algorithm Intern, Virtual Human Division, CVTE, Guangzhou July 2023 – Sept 2023

- Finetuned open-source LLMs via LoRA for stylized output in livestreaming contexts
- Crawled 1k frequently asked livestream questions to build a knowledge embedding database
- Developed a Flask-based API for PPT-to-script generation using LLM, deployed via Docker
- Annotated and verified 5k samples of text-to-speech training data

Research

Dyson Robotics Lab, Imperial College London Feb 2025 – Present

Supervised by Dr. Hide Matsuki

- Developed a novel 3D primitive-based shape reconstruction system integrating superquadrics and signed distance field learning
- Reproduced methods from papers such as SuperDec and used a transformer-based point cloud clustering approach to guide primitive fitting

Medical Image Analysis for Nasopharyngeal Carcinoma Feb 2023 – Sept 2023

- Segmented tumor ROI from MRI scans using U-Net trained on annotated data from SYSUCC
- Extracted features via DenseNet-201 for MRI tumor patches
- Reproduced Neural Attenuation Fields to reconstruct 3D views from CT and PET scans

Aging Cause Analysis via Bayesian Gompertz-Makeham Modeling, July 2023 – Oct 2023

Supervised by Dr. Fabian Spill, University of Birmingham

- Collected and formatted US aging-related disease death data at 5-year intervals
- Modeled survival impact via Bayesian estimation, fitted G-M model with hypothesis tests

Projects

AI Fitness Coach (Silver Medal, Internet+ Competition) Feb 2022 – June 2023

- Detected human body keypoints using BlazePose after person localization by YOLOv7
- Built a training dataset of 20+ actions; SVM classifier with GA-optimized hyperparameters reached 95% accuracy
- Collaborated with Shenzhen Ruitu to pilot the system in AI-supported classroom environments

Honors & Awards

- National Second Prize, China Undergraduate Math Modeling Contest (Top 5%)
- First-Class Scholarship for Outstanding Students, Jinan University (Top 3%, 2021-2023)
- "Academic Rising Star" Special Scholarship, Jinan University (Top 10%, 2023)
- Honorable Mention, MCM/ICM (Top 25%, 2022)

Skills

Programming: PyTorch*, TensorFlow, C/C++, MATLAB*, LaTeX* (* = proficient)

Languages: English (IELTS 7), Cantonese (Fluent)