

Chexuan Qiao

Trinity College, Cambridge, CB2 1TQ
cq244@cam.ac.uk ◇ +44 7713 903393

EDUCATION

Trinity College, University of Cambridge

2021-2024[Expected]

M.Eng. in Information and Computer Engineering

Trinity College, University of Cambridge

2021-2023

B.A. in Information and Computer Engineering

First Class Honours

Fourth-year core modules: deep learning and structured data (4F10), computer vision (4F12), probabilistic machine learning (4F13), computational statistics and machine learning (4M24)

Third-year core modules: signals and systems (3F1), statistical signal processing (3F3), data transmission (3F4), information theory and coding (3F7), inference (3F8), 3D computer graphics (3G4), mathematical methods (3M1)

The University of Hong Kong

2019-2024[Expected]

B.Eng. in Computer Engineering

CGPA 3.98/4.3

RESEARCH INTEREST

Computer vision, 3D body shape reconstruction, knowledge distillation.

RESEARCH EXPERIENCE

Final Year Project

Oct 2023 - May 2024

Computer Vision and Robotics Group

Accurate 3D body shape reconstruction from single RGB images

Supervisor: Prof. Roberto Cipolla

- Accurate 3D body shape reconstruction.

Undergraduate Research Opportunities Programme

June 2023 - September 2023

Conservation Research Institute, University of Cambridge

Mapping Bird Distribution across Britain

Supervisor: Prof. David Coomes, Dr. Mark Wilson

- Analysed correlations between bird abundance data and environmental metrics ranging from canopy structure, woodland composition, climate and topology.
- LiDAR understory Plant Area Distribution(PAD).
- Using randomForest, created maps of bird abundance across Britain.

Summer research internship

June 2022 - September 2022

EEE, HKU

Knowledge Distillation as Efficient Pre-training (KDEP) on Vision Transformers

Supervisor: Dr. Ruifei He, Dr. Xiaojuan Qi

- Studied transformer architectures, and conducted a literature search for suitable teacher networks. Implemented KDEP on DeiT and Swin transformers.

- Conducted ablation studies on optimiser, training schedule, and downstream datasets (CIFAR100, FLOWERS, Stanford CARS).

Summer research internship

May 2020 - September 2020

EEE, HKU

Computer Vision and Image Segmentation

Supervisor: Dr. Xiaojuan Qi

- Studied the broader aspects of computer vision, neural networks, and PyTorch as preparation for the research.
- Constructed a knowledge-distillation PSPNet which achieved a 2 percent mIoU increase from the original PSPNet.

HONORS, SCHOLARSHIPS & AWARDS

Junior Scholar, Trinity College, University of Cambridge	<i>2022</i>
Cambridge Trust Scholarship, University of Cambridge	<i>2021-2024</i>
EE 72 Philip Ng Scholarship, HKU	<i>2020-2021</i>
HKU-Cambridge Joint Recruitment Scheme	<i>2020</i>
Dean's Honours List, HKU	<i>2019-2021</i>