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EDUCATION

The Hong Kong University of Science and Technology

Sept 2021 - Aug 2025

BSc in Computer Science and in Mathematics

Hong Kong SAR

• Cumulative GPA (CGA): 4.095/4.3 (Ranked 2nd in major cohort)

Major GPA: 4.129/4.3

Stanford University

Jun 2023 - Aug 2023

UG Exchange

CA, United States

 Related Coursework: Machine Learning (PG level), Stochastic Process, Introduction to High Performance Computing

• ETH Zürich Sept 2023 - Feb 2024

UG Exchange

Zürich, Switzerland

• Related Coursework: Deep Learning (PG level), Computer Systems (Operating Systems + Distributed Systems), Applied Regression Analysis, Game Theory and Control (PG level)

PUBLICATIONS

Wu, Qi*, Yubo Zhao*, Yifan Wang, Xinhang Liu, Yu-Wing Tai, and Chi-Keung Tang. "Motion-Agent: A Conversational Framework for Human Motion Generation with LLMs" arXiv preprint arXiv:2405.17013 (2024).

Wu, Qi*, Yuyao Zhang*, and Marawan Elbatel. "Self-prompting large vision models for few-shot medical image segmentation." In MICCAI workshop on domain adaptation and representation transfer, pp. 156-167. Cham: Springer Nature Switzerland, 2023.

EXPERIENCE

• The Hong Kong University of Science and Technology

Feb 2024 -

Research Intern
• Working with **Prof. Chi-Keung Tang** and **Yu-Wing Tai**

Hong Kong SAR

- Topics: computer vision, multimodality, large language models
- Now one project Motion-Agent is available on arXiv
- The Hong Kong University of Science and Technology

Jul 2024 - Aug 2024

Teaching Assistant, COMP 2012: Object-Oriented Programming and Data Structures

Hong Kong SAR

Designed and implemented labs to reinforce key concepts in object-oriented programming and data structures

- Contributed to course design by independently designing and developing one of the three major programming assignments, including creating detailed problem statements, writing test cases, and ensuring alignment with the course's learning objectives.
- The Hong Kong University of Science and Technology

Research participant in Undergraduate Research Opportunity Program

Sept 2022 - Aug 2023

Hong Kong SAR

• Supervisor: Prof. Xiaomeng Li

- Topics: medical image analysis, multimodality, image segmentation, CLIP
- One paper accepted by MICCAI 2023 Domain Adaptation and Representation Transfer (DART)

PROJECTS

• Motion-Agent: A Conversational Framework for Human Motion Generation with LLMs

Feb 2024 - Oct 2024

Keywords: 3D human motion generation, large language models, multimodality, text-to-motion, conversational AI

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- Leveraged pretrained LLMs for 3D human motion tasks
- Led the design, development and implementation of the project
- \circ Completed the majority of experiments, including training, testing
- Contributed significantly to the paper, writing more than half of the content

Self-Prompting Large Vision Models for Few-Shot Medical Image Segmentation

Feb 2023 - Aug 2023

Keywords: image Segmentation, few-shot learning, SAM

- Proposed a novel computationally efficient method that leverages the large-scale pre-trained model the Segment Anything Model (SAM) for few-shot medical image segmentation.
- Developed a method to self-prompt the foundation model SAM in the few-shot setting and demonstrated the potential and feasibility of such a self-prompting method for downstream image segmentation tasks.

SKILLS

- Use PyTorch and Python to implement and train neural networks
- Familiar with <u>Convolutional Neural Network (CNN)</u>, <u>Contrastive Language-Image Pretraining (CLIP)</u> and <u>Vision Transformer (ViT)</u> models for computer vision tasks
- Have experience in multimodality and Large Language Models (LLMs)
- Understand and write codes in C++, R, MATLAB and Python
- Write academic papers using **LaTeX**
- Interact with Linux compute nodes through **SSH** and **Conda** environments
- Use **git** for source code management and remote collaboration

HONORS AND AWARDS

• Dean's List

Fall 2021, Spring 2022, Fall 2022, Spring 2023

HKUST School of Engineering

• University's Scholarship Scheme for Continuing Undergraduate Students *HKUST*

2021-2022, 2022-2023, 2023-2024

∘ HK\$ 40,000, highest in the scheme, top 2nd percentile of all continuing UG students (i.e. CGA of 3.980 or above)

• Runner-up in HKUST Robomaster Internal Competition.

Dec 2022

HKUST Robomaster Team

- Acted as the software leader
- o Design, implemented the software system, drivers