WU, Qi

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Hong Kong SAR

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)

EXPERIENCE

- **The Hong Kong University of Science and Technology** *Feb 2024 -*
  Research Assistant Hong Kong SAR
  - Working with **Prof. Chi-Keung Tang** and **Yu-Wing Tai**
  - Topics: computer vision, multimodality, large language models
  - Now one project MotionLLM 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** *Sept 2022 - Aug 2023*
  Research participant in Undergraduate Research Opportunity Program 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

- **MotionLLM: Multimodal Motion-Language Learning with Large Language Models** *Feb 2024 - Aug 2024*
  Keywords: 3D human motion generation, large language models, multimodality, text-to-motion [GitHub]
  - Leveraged pretrained LLMs for 3D human motion tasks
  - Led the design, development and implementation of the project
  - 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 [GitHub]
  - 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.

Publications

Wu, Qi*, Yubo Zhao*, Yifan Wang*, Yu-Wing Tai, and Chi-Keung Tang. "MotionLLM: Multimodal Motion-Language Learning with Large Language Models." 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.

Skills

- Use **PyTorch** and **Python** to implement and train neural networks
- Familiar with **Convolutional Neural Network (CNN)**, **Contrastive Language-Image Pretraining (CLIP)** and **Vision Transformer (ViT)** 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** *2021-2022, 2022-2023*
  HKUST
  ◦ 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
  ◦ Design, implemented the software system, drivers