

Qihang Fang

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EDUCATION

The University of Hong Kong

PhD. in Institute of Data Science. Supervised by: [Prof. Yanchao Yang](#) and [Prof. Yi Ma](#) Sep. 2023 - Present

Interdisciplinary Research Center, Shandong University (IRC, SDU)

M.Sc. in Computer Science and Technology. Supervised by: [Prof. Baoquan Chen](#) Sep. 2020 - Jun. 2023

Shandong University

B.Eng. in Computer Science and Technology. Grade: 85.48/100 Sep. 2016 - Jun. 2020

EXPERIENCE

Meta Reality Lab

Research intern, working on AI sports coaching. Oct. 2024 - Present

Collaborator: [Chengcheng Tang](#) Sausalito, USA

Tencent AI Lab

Research intern, working on human motion animation. Jul. 2021 - Jun. 2023

Collaborator: [Qingnan Fan](#) Shenzhen, China

PROJECTS

Research Interests: Sports Coaching, Robotics, Virtual Avatar, Reinforce Learning etc.

Active Camera Localization | (accepted by ECCV2022)

- Actively move the agent to an easily located area when the localization result is wrong.
- We explicitly model the camera and scene uncertainty components to solve the problem of active camera localization by reinforcement learning. These components not only help the agent to move more efficiently, but also help the agent to actively choose the time to stop. Meanwhile, we combine the active localization module with a passive continuous localization module to solve the low accuracy problem faced by previous active camera localization algorithms.

AI Sports Coaching | (one paper accepted by NeurIPS 2024, on going)

- Develop an AI system to guide humans for sports.
- Our project aims to develop an innovative system that leverages advanced deep learning technologies, such as large language models and computer vision (CV), in conjunction with expert knowledge from the sports domain. This system will provide guidance for individuals performing physical activities in real-world settings.
- We make significant progress in our project by developing a data generation pipeline that utilizes the inverse process of motion editing, generating source motion, target motion, and corrective instructions. We have also improved the training process for our multimodal large language model, using the generated dataset to train a model that can generate corrective instructions based on motion pairs. (accepted by NeurIPS 2024)

PUBLICATIONS

[1] "Towards Accurate Active Camera Localization", accepted by European Conference on Computer Vision (ECCV 2022) [[Paper](#)] [[Github](#)]

Qihang Fang*, Yingda Yin*, Qingnan Fan, Fei Xia, Siyan Dong, Sheng Wang, Jue Wang, Leonidas Guibas, Baoquan Chen

[2] "CigTime: Corrective Instruction Generation Through Inverse Motion Editing", accepted by Conference on Neural Information Processing Systems (NeurIPS 2024)

Qihang Fang, Chengcheng Tang, Bugra Tekin, Yanchao Yang

HONORS AND AWARDS

- The First Prize in The Ninth ACM Collegiate Programming Contest in Shandong
- The Bronze Prize in The 42th ACM International Collegiate Programming Contest (Asian Region, Qingdao)
- The First Prize in China Undergraduate Mathematical Contest in Modeling-2018 Shandong
- The First scholarship in Shandong University