

Qichen Fu

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EDUCATION

Carnegie Mellon University, School of Computer Science

Master of Science in Robotics; GPA: 4.24/4.33

Pittsburgh, PA

Aug. 2020 - Aug. 2022

Teaching Assistant: Visual Learning and Recognition (2022), Computer Vision (2021)

University of Michigan - Ann Arbor, College of Engineering

Bachelor of Science in Computer Science (dual degree with SJTU); GPA: 4.00/4.00

Ann Arbor, MI

Aug. 2018 - Apr. 2020

Instructional Aide: Computer Vision (2019, 2020)

Shanghai Jiao Tong University

Bachelor of Engineering in Electrical and Computer Engineering (dual degree with UM); GPA: 3.73/4.00

Shanghai, China

Sept. 2016 - Aug. 2020

WORK EXPERIENCE

Apple Inc.

Machine Learning Engineer at AI/ML - Machine Intelligence Neural Design (MIND)

Seattle, WA

Aug. 2022 - Present

- Working on 3D Hand-Object Interaction and Neural Rendering

RESEARCH EXPERIENCE

KLab, Carnegie Mellon University

Research Assistant; Advisor: Prof. Kris Kitani

Pittsburgh, PA

Oct. 2020 - Aug. 2022

- Led the video de-identification, state change object detection benchmark and challenge development of the EGO4D dataset
- Proposed a pixel-wise voting function with Relational Box Field to robustly detect active objects under occlusions
- Proposed a Dynamic Fusion Transformer framework for robust 3D hand pose estimation from videos

Fouhey AI Lab, University of Michigan

Research Assistant; Advisor: Prof. David Fouhey

Ann Arbor, MI

May 2019 - May 2020

- Developed an unsupervised object detection system predicting bounding boxes and articulation type for objects in video
- Built an artificial object detection system for image filtering, reaching an accuracy of 95.06% and an AUC score of 0.92

Fessler Research Group, University of Michigan

Research Assistant; Advisor: Prof. Jeffrey A. Fessler, Prof. Yuni Dewaraja

Ann Arbor, MI

Oct. 2018 - May 2020

- Proposed a complex-valued U-Net for MRI reconstruction, reducing parameters by 50% compared to the vanilla U-Net
- Developed a novel method integrating back-projection and 3D U-Net for PET reconstruction directly from measurements

PUBLICATIONS

Deformer: Dynamic Fusion Transformer for Robust Hand Pose Estimation

Qichen Fu, Xingyu Liu, Ran Xu, Juan Carlos Niebles, Kris M. Kitani

arXiv Preprint

Domain Adaptive Hand Keypoint and Pixel Localization in the Wild

Takehiko Ohkawa, Yu-Jhe Li, Qichen Fu, Ryosuke Furuta, Kris M. Kitani, Yoichi Sato

ECCV 2022

Sequential Voting with Relational Box Fields for Active Object Detection

Qichen Fu, Xingyu Liu, Kris M. Kitani

CVPR 2022

Ego4D: Around the World in 3,000 Hours of Egocentric Video

Kristen Grauman, ..., Qichen Fu, ..., Jitendra Malik

CVPR 2022

A Self-Supervised Deep Model for Focal Stacking

Weizhi Du*, Qichen Fu*, Zhengyu Huang

CLEO 2022

EgoAugment: CMU-KLAB Submission to the EPIC-Kitchens Action Recognition 2021 Challenge

Xuhua Huang, Ye Yuan, Xingyu Liu, Qichen Fu, Kris M. Kitani

EPIC @ CVPR 2021

HONORS

University of Michigan: Jackson and Muriel Lum Scholarship, James B. Angell Scholar, University Honors

Shanghai Jiao Tong University: National Scholarship, Undergraduate Excellent Scholarship, MiYuan Public Welfare Scholarship