ZEKUN ZHANG

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☐ Education

• Stony Brook University (SBU)

 $08/2018 \sim 08/2024$

Ph.D. in Computer Science

Dissertation: Scene and Task Adaptive Event and Object Detection

University of Science and Technology of China (USTC)
B.S. in Chemistry, M.E. in Computer Science

 $08/2010 \sim 06/2018$

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□ Experience

• Principal Engineer, GroupClock Inc.

 $06/2024 \sim 08/2024$

- Design of the overall architecture and technology stack for time clock systems
- Development of human pose and face recognition models for employee identification
- Deployment of models on edge devices using NVIDIA DeepStream toolkit
- Development of employee management system based on MongoDB
- Software Engineer Intern, Meta Platforms Inc.

 $07/2022 \sim 09/2022$

- Development of training data sampling algorithms for Instagram reels recommendation retrieval model
- Improvement of item quality and user engagement rates in online production A/B test
- Research Assistant, Computer Vision Lab, SBU

 $01/2019 \sim 08/2024$

- Research interests: self-supervised learning, model adaptation, video understanding
- Development of precise, robust, and efficient frameworks for scene-adaptive object detection
- Development of prompt adaptation algorithm for object detection on novel categories and new tasks
- Research Assistant, Multi-Agent Systems Lab, USTC

 $04/2015 \sim 06/2018$

- Research interests: home service robot, robot vision, human-robot interaction
- Development and maintenance of human identification, object detection, and object manipulation systems for home service robot platform
- In RoboCup competitions: best manipulation award in RoboCup 2017; 3rd place of @Home league in RoboCup 2016; 1st place of BSR league, 2nd place of @Home league in RoboCup 2015

□ Publications

- Huiying Liu, **Zekun Zhang**, Qilin Wu, Yiwen Zhang, Large Language Model Aided QoS Prediction for Service Recommendation, 2024 (under review)
- **Zekun Zhang**, Vu Quang Truong, Minh Hoai, *Efficiency-Preserving Scene-Adaptive Object Detection*, The British Machine Vision Conference (BMVC), 2024 **oral**
- Shih-Po Lee, Zijia Lu, **Zekun Zhang**, Minh Hoai, Ehsan Elhamifar, *Error Detection in Egocentric Procedural Task Videos*, Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- Cheng Liu, Xuyang Yan, Zekun Zhang, Cheng Ding, Tianhao Zhao, Shaya Jannati, Cynthia Martinez, Dietrich Stout, Human Stone Toolmaking Action Grammar (HSTAG): A Challenging Benchmark for Fine-grained Motor Behavior Recognition, International Conference on Data Science and Advanced Analytics (DSAA), 2024
- **Zekun Zhang**, Minh Hoai, *Object Detection with Self-Supervised Scene Adaptation*, Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- **Zekun Zhang**, Farrukh M. Koraishy, Minh Hoai, *Exemplar-Based Early Event Prediction in Video*, The British Machine Vision Conference (BMVC), 2021

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- Vinh Tran, Yang Wang, **Zekun Zhang**, Minh Hoai, *Knowledge Distillation for Human Action Anticipation*, International Conference on Image Processing (ICIP), 2021
- **Zekun Zhang**, Bing Tang, Xiaoping Chen, *Object Manipulation System with Multiple Stereo Cameras for Logistics Applications*, Journal of Computer Applications, 2018
- Guowei Cui, Guangda Chen, **Zekun Zhang**, Xiaoping Chen, *A Flexible Grasping Policy Based on Simple Robot-Camera Calibration and Pose Repeatability of Arm*, International Conference on Intelligent Robotics and Applications (ICIRA), 2018

☐ Skills

- Programming: Python, C/C++, familiar with: JavaScript, SQL
- Libraries: PyTorch, NumPy, scikit-learn, OpenCV, STL
- Tools: Linux, Git, LaTeX, Adobe Photoshop, Adobe Illustrator
- Languages: Chinese, English, Japanese

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