KAI YE

Tel:(+86) 18559228224 | Email: kaiye1@link.cuhk.edu.cn | Website: https://elvin-yk.github.io/kaiye.github.io/

EDUCATION

The Chinese University of Hong Kong, Shenzhen   Jan. 2024 - Now

Master of Philosophy, **Major:** *Computer and Information Engineering,* **Supervisor:** *Prof. Rui Huang*

Research Assistant, Shenzhen Institute of Artificial Intelligence and Robotics

Lanzhou University   Sep. 2018 - Jul. 2022

Bachelor of Science, **Major:** *Computer Science & Technology,* **Supervisor:** *Prof. Minqiang Yang*

Research Assistant, UAIS Lab

PUBLICATION/PREPRINTS

[1] **Kai Ye**[*], Yuhang Wu[*], Shuyuan Hu, Junliang Li, Meng Liu, Yongquan Chen, Rui Huang. Gen2Real: Towards Demo-Free Dexterous Manipulation by Harnessing Generated Video. In *arXiv:2509.14178*
Submitted to ICRA 2026.

[2] Junliang Li[*], **Kai Ye**[*], Haolan Kang, Mingxuan Liang, Yuhang Wu, Zhenhua Liu, Huiping Zhuang, Rui Huang, Yongquan Chen. Grasp What You Want: Embodied Dexterous Grasping System Driven by Your Voice. In *arXiv:2412.10694*
Major revision at Journal of Field Robotics.

[3] **Kai Ye**, Yinru Ye, Minqiang Yang, Bin Hu. Independent Encoder for Deep Hierarchical Unsupervised Image-to-Image Translation. In *arXiv:2107.02494*

[4] Minqiang Yang, Yinru Ye, **Kai Ye**, Wei Zhou, Xiping Hu, Bin Hu. Retinal Vessel Segmentation in Medical Diagnosis using Multi-scale Attention Generative Adversarial Networks.
The Journal of Mobile Networks and Applications

[5] Minqiang Yang, Yinru Ye, **Kai Ye**, Xiping Hu, Bin Hu. Retinal Vessel Segmentation Using Multi-scale Generative Adversarial Network with Class Activation Mapping.
The 10th EAI International Conference on Wireless Mobile Communication and Healthcare, 2021.

[6] Bin Hu, Minqiang Yang, **Kai Ye**, Yiqi Huang, Yinru Ye, Haoqiu Yan. A kind of Eyeglasses Try-On System
The National Invention Patent (publication number: CN112418138B)

[7] Software Copyright: Lottery system for the right to use underground parking spaces **(first student author)**

[8] Kexin Sun, Yuelan Xin, Yunliang Qi, Meng Lou, **Kai Ye**, Yinru Ye. CAGU-Net: Category Attention Guidance U-Net for Retinal Blood Vessel Segmentation.
17th International Conference on Computational Intelligence and Security (CIS). IEEE.

[9] Xinlong Chen, **Kai Ye**, WenCe Zhou. Application of artificial intelligence in new diagnostic and therapeutic pattern of pancreatic diseases and its advances.
Chinese Journal of Medical Physics, 2022.

WORK EXPERIENCE

Algorithm Engineer, YITU, Shanghai   Jul. 2022 - Jun. 2023

Autonomous Driving Motion Prediction   Jul. 2022 - Dec. 2022

- To improve the overall performance of the prediction model, I followed most of the relevant papers and implemented approaches, such as data augmentation, network architecture optimization, and loss function design, that were known to benefit the current network module. The final performance index was 10% lower than the benchmark experiment (lower is better) and the model successfully solved 44.05% of the road test problems in the actual scene.

Mapless Driving   Jan. 2023 - Jun 2023

- Mainly responsible for the data engineering part of road network structure prediction. Focus on designing experiments to improve performance from the perspective of data dimensions. While ensuring data accuracy and pipeline efficiency, explore the impact of data diversity, density, and other aspects on performance.

DEVELOPMENT EXPERIENCE

Voice-Controlled Dexterous Grasping System   **Sep. 2024 - Dec. 2024**
- Dexterous-hand grasping system that executes natural-language voice commands to find and grasp specified objects.
- Live demoed and **featured on CCTV** during the 2024 China International Hi-Tech Fair.

Online Class Auto-Directing System | https://gitee.com/elvinyk/class_platform   **Jul. 2024 - Aug. 2024**
- Automatically switches among teacher, slides, and classroom views by analyzing behaviors of professors and students.
- Provides hands-free, steady online-teaching production with rule-based scene understanding and multi-camera control.

CVPR 2024 Autonomous Driving Competition | https://opendrivelab.com/challenge2024   **Mar. 2024 - Jun. 2024**
- Multi-View 3D Visual Grounding (MV3DVG) track; **placed 5/64** representing the laboratory.

Eye tracker host computer development   **Dec. 2020 - Sept. 2021**
- Developed a host computer system capable of reading and storing eye movement and facial expression data that are synchronously captured by a depth camera and eye tracker. This system has been used in the UAIS Lab.

Multimodal open dataset MODMA website | *http://modma.lzu.edu.cn/*   **Nov. 2019 - Feb. 2020**
- Developed a website to host a public dataset of emotions for UAIS labs.

Lottery system for the right of underground parking   **Mar. 2019 - Oct. 2019**
- Implemented a lottery system to allocate parking spaces for new apartments to teachers. The system has conducted an open lottery on site.

OTHERS

- Strong coding skills with deep expertise in Python and modern ML tooling.

- Able to independently design, implement, and optimize deep-learning model architectures end-to-end (from data pipelines to training, evaluation, and performance tuning).

- Extensive hands-on experience with Linux.

- I have a competent command of English, as evidenced by an IELTS score of 6.5

- I enjoy playing basketball in my leisure time.