Hanjing YE

Curriculum Vitae

Department of Electrical and Electronic Engineering
Southern University of Science and Technology
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Education

2022–present **PhD candidate, Member of Robotics and Computer Vision Lab**, *Southern University of Science and Technology (SUSTech)*, Supervised by Dr. Hong Zhang, Fellow of IEEE and Canadian Academy of Engineering.

2020–2022 : **Visisting student, Member of Robotics and Computer Vision Lab**, *SUSTech*, Supervised by Dr. Hong Zhang.

2019–2021 : **Master of Engineering, Member of Biomimetic and Intelligent Robotics Lab**, *Guangdong University of Technology (GDUT)*, Supervised by Dr. Hong Zhang.

2015–2019 : **Bachelor of Engineering, Mechanical and Electrical Engineering**, *GDUT*.

Publications

† indicates equal contribution.

2024 **Hanjing Ye,** Jieting Zhao, Yu Zhan, Weinan Chen, Li He and Hong Zhang*, *Person Re-Identification for Robot Person Following with Online Continual Learning*, Accepted by RAL 2024.

2024 Jieting Zhao, **Hanjing Ye,** Yu Zhan and Hong Zhang*, *Human Orientation Estimation Under Partial Observation*, Accepted by IROS 2024.

2024 Jingwen Yu, **Hanjing Ye,** Jianhao Jiao, Ping Tan and Hong Zhang*, *GV-Bench: Benchmarking Local Feature Matching for Geometric Verification of Long-term Loop Closure Detection*, Accepted by IROS 2024.

2023 **Hanjing Ye,** Jieting Zhao, Yaling Pan, Weinan Chen, Li He and Hong Zhang*, *Robot Person Following Under Partial Occlusion*, Published in ICRA 2023.

2023 **Hanjing Ye**†**,** Weinan Chen†, Jingwen Yu, Li He, Yisheng Guan and Hong Zhang*, *Condition-Invariant and Compact Visual Place Description by Convolutional Autoencoder*, Published in ROBOTICA 2023.

2023 Zhilong Tang**, Hanjing Ye** and Hong Zhang*, *Multi-scale Point Octree Encoding Network for Point Cloud based Place Recognition*, Published in IROS 2023.

2022 Weinan Chen†, **Hanjing Ye**†**,** Lei Zhu, Chao Tang, Changfei Fu and Hong Zhang*, *Keyframe Selection with Information Occupancy Grid Model for Long-term Data Association*, Published in IROS 2022.

2021 **Hanjing Ye,** Guangcheng Chen, Weinan Chen, Li He, Yisheng Guan and Hong Zhang*, *Mapping While Following: 2D LiDAR SLAM in Indoor Dynamic Environments with a Person Tracker*, Published in ROBIO 2021.

Research Experience

Robotics and Computer Vision Lab, SUSTech

2021–present **Robot Person Following (RPF)**.

- Developing a heuristic-guided person-search strategy for simultaneous exploring and searching in unknown environments.
- Proposed a confidence-aware orientation estimation method using the person's visible joints.
- Proposed a robust person re-identification framework capable of adapting to severe domain drifts through online continual learning.
- Proposed a vision-based RPF system to locate and follow an user, effectively handling partial occlusions using a joint-height-based geometric model.

Advisor : **Dr. Hong Zhang**

Robotics and Computer Vision Lab, SUSTech & Biomimetic and Intelligent Robotics Lab, GDUT

2019–2021 **Visual Place Recognition (VPR)**.

- Proposed a unified benchmark targeting geometric verification of loop closure detection under long-term conditional variations.
- Introduced a keyframe selection strategy leveraging an information occupancy grid model. This approach, based on explainable deep learning descriptors and information gain theory, enhances long-term data association.
- Proposed a condition-invariant, compact visual place description for VPR, employing a convolutional-autoencoder-based reconstruction process to distill high-level representations.

Advisor : **Dr. Hong Zhang**

Activities and Services

IEEE Transactions on Intelligent Vehicles (TIV) Reviewer

IEEE Transactions on Automation Science and Engineering (TASE) Reviewer

IEEE ICRA, CASE Reviewer

IEEE/RSJ IROS Reviewer

IEEE ICRA 2021 Session Chair & Outstanding Volunteer

Teaching Assistant

Fall, 2022: **EE5346: Autonomous Robot Navigation**, SUSTech.

Spring, 2021: **EE346: Mobile Robot Navigation and Control**, SUSTech.