# Hanjing YE

# Curriculum Vitae

**G** Github **in** Linkedin **S**Skype



# Education

2022—present **PhD candidate, Electrical and Electronic Engineering**, Southern University of Science and Technology (SUSTech), Shenzhen.

2020–2022: **Visisting student, Electrical and Electronic Engineering**, *SUSTech*, Shenzhen.

2019–2021: **Master of Engineering, Mechanical and Electrical Engineering**, *Guangdong University of Technology (GDUT)*, Guangzhou.

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

# **Publications**

<sup>†</sup> indicates equal contribution, and \* indicates corresponding authorship.

# Conference Proceedings

- 2023 **Hanjing Ye,** Jieting Zhao, Yaling Pan, Weinan Chen, Li He and Hong Zhang\*, Robot Person Following Under Partial Occlusion, Submitted to *2023 IEEE International Conference on Robotics and Automation (ICRA)* Under review.
- Weinan Chen<sup>†</sup>, **Hanjing Ye<sup>†</sup>**, Lei Zhu, Chao Tang, Changfei Fu and Hong Zhang<sup>\*</sup>, Keyframe Selection with Information Occupancy Grid Model for Long-term Data Association, In *2022 IEEE International Conference on Intelligent Robots and Systems (IROS)* Published.
- 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, In 2021 IEEE International Conference on Robotics and Biomimetics (ROBIO) Published.

#### Journal Articles

2021 **Hanjing Ye**<sup>†</sup>, Weinan Chen<sup>†</sup>, Jingwen Yu, Li He, Yisheng Guan and Hong Zhang<sup>\*</sup>, Condition-Invariant and Compact Visual Place Description by Convolutional Autoencoder, Submitted to *ROBOTICA* – Accepted.

# Research Experience

# Shenzhen Key Laboratory of Robotics and Computer Vision, SUSTech

### 2021–present **Robot Person Following**.

- Developing a life-long person identification module which could keep identifying the master even under severe domain-drift condition based on a novel replay-based online continual learning method.
- Proposed a vision-based robot person following system which endows the mobile robot with an ability of following the master even under partial occlusion based on a novel hybrid location approach.
- Proposed a robot-person-following-assisted 2D LiDAR SLAM system that is able to simplify the mapping procedure and mitigate the influence of dynamic objects.

Advisor: Dr. Hong Zhang, Chair Professor, Department of Electronic and Electrical Engineering, SUSTech

> Shenzhen Key Laboratory of Robotics and Computer Vision, SUSTech & Biomimetic and Intelligent Robotics Laboratory, GDUT

# 2019–2021 *Visual Place Recognition*.

- Proposed a keyframe selection strategy with information occupancy grid model for long-term data association by utilizing explainable deep-learning-based descriptor and information gain theory.
- Proposed a condition-invariant and compact visual place description for visual place recognition by distilling the high-level representation with a convolutional-autoencoder-based reconstruction procedure.

Advisor: Dr. Hong Zhang, Chair Professor, Department of Electronic and Electrical Engineering,

SUSTech

Teaching Assistant

Fall, 2021: **EE5346: Autonomous Robot Navigation**, SUSTech.

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