Guangyao Zhai

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Education

- **Zhejiang University** *Hangzhou · China* Sep. 2018 – Mar. 2021
  Master's Degree in Control Science and Engineering
  Affiliated with State Key Laboratory of Industrial Control Technology
- **Northwestern Polytechnical University** *Xi'an · China* Sep. 2014 – Jun. 2018
  Bachelor's Degree in Automation, **Academic Record Percentage:** 87/100, **GPA:** 3.57/4.00

Skills

- **Programming**: Python, C++, MATLAB, LaTeX
- **Framwork**: Robot Operating System (ROS), PyTorch

Publication

- **Journal**
  - **Guangyao Zhai**, Liang Liu, Linjian Zhang and Yong Liu. PoseConvGRU: A Monocular Approach for Visual Ego-motion Estimation by Learning. **Pattern Recognition (2020)**
- **Conference**
  - Xin Kong, **Guangyao Zhai**, Baoquan Zhong and Yong Liu. PASS3D: Precise and Accelerated Semantic Segmentation for 3D Point Cloud. **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)**
  - Liang Liu, **Guangyao Zhai**, Wenlong Ye and Yong Liu. Unsupervised Learning of Scene Flow Estimation Fusing with Local Rigidity. **the Twenty-Eighth International Joint Conference on Artificial Intelligence (IJCAI 2019)**
  - Xin Kong, Xuemeng Yang, **Guangyao Zhai** and Yong Liu et.al. Semantic Graph Based Place Recognition for 3D Point Clouds. **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2020)**

Project

- **Research on the Perception and Decision of Legged Robots** May. 2019 – Now
  Affiliated with: **Zhejiang University & DeepRobotics Co. Ltd.**
  - **Introduction:** I am cooperating with DeepRobotics to research the perception ability of legged robots. The main task is to achieve 3D real-time obstacle avoidance tracking for an interested moving target (SOT). The overall project is based on the ROS framework and is divided into four modules: Global Map Relocalization, Walkable Area Detection, 3D Single Object Tracking, Path Planning and Navigation.
  - **Responsibilities:** I am the **project leader** and responsible for writing project materials, coordinating the progress of other project fellow and connecting with other relevant fellow. I research and make the module of Walkable Area Detection and Object Tracking in the project.

Internship Experience

- **Huawei Technologies Co. Ltd.** *Shanghai · China* Apr. 2020 – Aug. 2020

  Research Intern / **Noah's Ark Laboratory, 2012 Laboratories**

  - To design a multi-sensor based 3D Multi-Object-Tracking framework by utilizing scene flow to achieve the MOT task based on camera and LiDAR

Additional Awards and Honors

- **Scholarships**
  - Zhejiang University Academic Scholarship 2018.
  - Three-time Northwestern Polytechnical University Second Prize Scholarship from 2014 to 2017.

Additional Information

- **Review Experience**
  - International Conference on Robotics and Automation (ICRA)
  - International Conference on Intelligent Robots and Systems (IROS)
  - International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines (CLAWAR)
- **Language Skills**
  - Mandarin Chinese native
  - English IELTS 6.5
- **Interests**
  - Passionate about swimming (practicing for five years), fitness and cooking.
- **Values and Methodology**
  - *Quality · Diligence · Self-reflection*