

## EDUCATION

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### Tongji University

B.Eng. in Computer Science, College of Electronic & Information Engineering.  
– **Gap Year for Research:** Sept. 2021 - Sept. 2022

Shanghai, China

Sept. 2019 - July. 2024

## PUBLICATION

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\*: equivalent contribution, #: corresponding author.

- **3D-Aware Object Goal Navigation via Simultaneous Exploration and Identification**

Jiazhao Zhang\*, **Liu Dai\***, Fanpeng Meng, Qingnan Fan, Xuelin Chen, Kai Xu, He Wang#

Accepted to *IEEE/CVF Computer Vision and Pattern Recognition Conference (CVPR) 2023*

- **Discovering Novel Categories in SAR Images in Open Set Conditions**

**Liu Dai**, Weiwei Guo#, Zenghui Zhang, Wenxian Yu

Published at *IEEE/GRSS International Geoscience and Remote Sensing Symposium (IGARSS) 2022*, **Oral**

## EXPERIENCE

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### RESEARCH EXPERIENCE

#### Peking University

Undergraduate Research Intern, Center on Frontiers of Computing Studies  
Advisor: **Prof. He Wang**

Beijing, China

Mar. 2022 - Present

#### Proj. : Active 3D Scene Understanding & Navigation

- We built a 3D-aware intelligent agent for Object Goal Navigation task, empowered by two simultaneous sub-policies. I conducted part of method design, coding, writing & plotting.
- It was my first time to step into 3D Vision & Embodied AI, and I found it really exciting and promising to build active agents for the real- and open-world.

#### Proj. : Mobile Manipulation

- On-Going Project.

#### Tongji-MIT City Science Lab

Undergraduate Research Intern  
Advisor: **Prof. Weiwei Guo**

Shanghai, China

Sept. 2021 - Mar. 2022

#### Proj. : Remote Sensing Image Interpretation with Deep Learning in Open & Challenging World

- To the best of our knowledge, we were the first to introduce Novel Category Discovery(NCD) into the remote sensing community. We started from an application-driven problem: *When encountered with new and unlabelled SAR data, what can we do to make best use of that much data we have labelled?*
- The project itself introduced me into Deep Learning & Computer Vision and piqued my interest in the setting of open-world. I undertook the most of coding, writing & plotting independently.

## TEACHING EXPERIENCE

**Teaching Assistant** for *Opensource Hardware and Programming* (55010501)  
Working with Prof. Xiaohua Sun  
– Delivering courses on Python & Arduino

Tongji University  
2021 Fall

## HONORS

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- **SenseTime Scholarship** 2022
  - Nationwide Selected 30 Undergraduates in the Field of AI.
- **Tongji Academic Star** 2022
  - Highest Honor for Undergrads at Tongji University (15/18536).
  - Rank 1st among All Recipients.
- **Outstanding Student Scholarship** of Tongji University 2020, 2021

## AWARDS

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- **National First Prize** in *Challenge Cup* Competition: Research Track 2021
  - Most Influential Research Competition among University Students in China.
  - Best Record in College History.
- **Gold Award of Shanghai** in *Internet+* Competition 2022
- **Gold Award of Shanghai** in *Challenge Cup* Competition: Entrepreneurship Track 2022
- **Silver Award of Shanghai** in National College Student *Innovation, Creativity & Entrepreneurship* Challenge 2022
- **Second Prize of Shanghai & Univ. Champion** in *FLTRP Cup* National English Public Speaking Contest 2020

## SKILLS

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- **Programming:** C/C++, Python, Arduino;
- **Tools:** Pytorch, OpenCV, Open3D, Habitat Simulator;
- **Other Skills:** Public Speaking, Presentation;

## LANGUAGE

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- **English:** Fluent
- **Mandarin:** Native
- **French:** Basic