Liu Dai

liudai-homepage.github.io Email: dailiu.cndl@gmail.com

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## EDUCATION

#### Tongji University

Shanghai, China

B.Eng. in Computer Science, College of Electronic & Information Engineering.

Sept. 2019 - July. 2024

- Gap Year for Research: Sept. 2021 - Sept. 2022

## **PUBLICATION**

\*: 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<sup>†</sup> 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<sup>†</sup>, Zenghui Zhang, Wenxian Yu
  Published at IEEE/GRSS International Geoscience and Remote Sensing Symposium(IGARSS) 2022, Oral

#### Experience

#### RESEARCH EXPERIENCE

## Peking University

Beijing, China

Mar. 2022 - Present

Undergraduate Research Intern, Center on Frontiers of Computing Studies

Advisor: **Prof. He Wang** 

Proj.: Active 3D Scene Understanding & Navigation

- We propose a framework for the challenging 3D-aware 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

Shanghai, China

Undergraduate Research Intern

Sept. 2021 - Mar. 2022

Advisor: Prof. Weiwei Guo

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

- We 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 the best 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

Tongji University 2021 Fall

- Delivering courses on Python & Arduino

## Honors

• 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

- 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

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

## LANGUAGE

• English: Fluent

• Mandarin: Native

• French: Basic