

Jiahao Zhang

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EDUCATION

- **University of Illinois Urbana-Champaign** Expected June. 2024
Master in Electrical & Computer Engineering GPA: 3.8/4.0
- **Zhejiang University** Aug. 2019 – July 2022
Bachelor in Automation GPA: 3.9/4.0

RESEARCH EXPERIENCE

- **Construction of Semantic Topological Map for Domestic Environment** Mar. 2021 - May 2022
Supervisor: Prof. Yan He Hangzhou, China
 - Semantic segmentation through Mask-RCNN network.
 - Infer the relative relationship of objects through the outputs of Mask and Faster-RCNN.
 - Construct a semantic topology map that can be used for navigation.
- **Audio Adversarial Sample Research** Sep. 2021 – Jan. 2022
Supervisor: Prof. Wenyuan Xu Ubiquitous System Security Lab, ZJU
 - Generate audio adversarial samples with Docker.
 - Apply OTA (over-the-air) attack on various models of mobile phones.
 - Audio compensation against OTA attacks via MATLAB.

PROJECTS

- **UDP-based Reliable Packet Transfer Protocol (TCP-like)** Oct. 2022
University of Illinois Urbana-Champaign Champaign, IL
 - Transfer packets using UDP in socket programming in C/C++.
 - Be able to tolerate packet drops, allow other concurrent connections.
- **Wireless Tracking Charger based on Computer Vision** Nov 2021
Zhejiang University Hangzhou, China
 - Visual recognition and coordinate extraction by using OpenCV on Windows/Raspberry Pi.
 - Use Arduino to receive data, send out signals and control motors.
- **Image Processing in Intelligent Food Delivery Robot** July 2021
Zhejiang University Hangzhou, China
 - Capture aruco codes and decode them in NVIDIA Jetson Nano.
 - Person recognition using YOLOv3 neural network based on darknet framework.
 - Port the above two functions to ROS and cooperate with other functions.

SELECTED HONORS

- **National Scholarship** the Minister of Education of the P.R.C Dec. 2020
- **Zhejiang University Scholarship - First Prize** Zhejiang University Dec. 2020
- **Provincial Government Prize** Zhejiang Education Dept. Sep. 2021

LEADERSHIP

- **Department Head** Sep. 2019 – June 2021
Publicity Department of Unmanned System Association, ZJU Hangzhou, China
 - Responsible for organizing the annual club recruitment and student festival activities.
 - Doubling the number of association registrations during the tenure.

SKILLS & HOBBIES

- **Languages:** C/C++, Python, Matlab, Bash, Markdown, \LaTeX
- **Developer Tools:** Git, Vim, ROS, Docker, Unreal Engine
- **Hobbies:** Badminton, Tennis, Jogging, Console Gaming