EWE ZU LIN

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EDUCATION

NATIONAL CHIAO TUNG UNIVERSITY

Bachelor of Science in Electrical and Computer Engineering

Cumulative GPA: 3.57/4.0

Relevant Coursework: Automatic Control System; Signal and Systems; Object-oriented

Programming; Data Structures; Algorithms; Intelligent Robots Lab; Human-centric Computing Lab



Cambridge International A Levels: 1A*, 1A, 1B, 1C

Kuala Lumpur, MY Nov 2016

Feb 2020 - Mar 2020

Hsinchu, TW

Expected June 2021

RESEARCH INTERESTS

Robotics; Unmanned Vehicles; Machine Learning; Computer Vision; Simultaneos Localization and Mapping;

PROJECTS

DARPA SUBTERRANEAN CHALLENGE

Urban Circuit in Elma, Washington, US

• The DARPA Subterranean or "SubT" Challenge seeks novel approaches to rapidly map, navigate, and search underground environments during time-sensitive combat operations or disaster response scenarios.

 Urban circuit was held at a would-be nuclear power plant, which its internal structure simulates or mirrors an urban underground environment.

• My responsibilities in the team included: Communications (Wi-Fi, p2p LoRa, mesh XBee), teleoperation, and data analysis.

SEARCH AND EXPLORATION ROBOT

Jun 2020

Final Competition, Human-centric Computing Lab (Spring 2020)

- Implemented a system on a teleoperated robot (Locobot), which its mission is to detect and localize specific items in an environment where the map is given via Apriltags.
- Modules: Learning-based Object Detection, Localization (Apriltags and wheel odometry).
- Placed first in the competition.

UNDERGRADUATE RESEARCH PROJECTS

<u>Uwb-based Positioning System Analysis and Applications in Mobile Robot Exploration</u>

**Fall 2019

**Xbee Wireless Mesh Network and Communication-aware Planning in Mobile Robot Exploration

Spring 2020

TEACHING EXPERIENCE

Teaching Assistant, Robotics Dev Workshop ft. Duckietown (One-day Workshop)May 2020Teaching Assistant, Al Robotics Dev Workshop: Locobot A to H (Summer Workshop)Summer 2020Teaching Assistant, Introduction to Artificial Intelligence (Robotics)Fall 2020

SKILLS

Programming Languages: C/C++, Python

Software and Libraries: Git, Docker, Robot Operating System(ROS), OpenCV, Pytorch, Octave, Hugo

Hardware: Raspberry Pi, Arduino, Dragino LoRa Shield, Digi XBee, Pozyx UWB Kit

Languages: Chinese, English, Malay

OTHER ACTIVITIES

Office of International Affairs, NCTU
Student Assistant / Volunteer

Hsinchu, TW Jun 2018 – Sep 2019