William Chen

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EDUCATION

UNIVERSITY of MARYLAND at COLLEGE PARK	Maryland, USA
MS in Electrical and Computer Engineering (ECE)	Expected December 2022
NATIONAL TAIWAN UNIVERSITY	Taipei, Taiwan
BS in Engineering Science and Ocean Engineering (ESOE)	September 2018-June 2021

TEACHING EXPERIENCE

AIRABBI Inc.   Taipei, Taiwan
Part-time CodingBar Teaching Assistant and Lecturer (May 2020-July 2020)
- Taught students ranging from 5th grade to high school Python
- Drafted a course syllabus, wrote instructional plan, prepared lecture notes, and recorded full lectures for BBC Microbit course

NTU ESOE camp   Taipei, Taiwan
Student counselor and teaching assistant in C++ for Arduino (July 2019)
- Tutored students who have no prior coding background after class for 5 days and guided them to write control algorithms for a mini autonomous boat

RESEARCH EXPERIENCE

Undergraduate Research (Aug 2020~Jul 2021)
- Conducted research with the Computational Knowledge Lab (CK Lab) and Advance Fluid and Power Control Lab (AFPCL) regarding indoor Simultaneous Localization and Mapping (SLAM)

Graduate Research (Dec 2021~)
- Conducting research with the Perception Robotics Group (PRG) regarding underwater SLAM

Selected Projects (complete portfolio on https://github.com/weiyutp6)

Robotics (Sep 2020-Jan 2021)
- This team project utilizes a TM5-900 robotic arm to accomplish various tasks. The overall goal of the project was to get the arm to prepare food.
- Analyzed the kinematics and control systems of using the robotic arm to grab on to utensils and coded the necessary algorithms on ROS Melodic

Object-Oriented Programming (Feb 2020-June 2020)
- This team project features a basic stock information interface and trading simulation with UI and real-time information of both indexes and individual stock
- My main contribution in the project is the online crawling of all real-time information

ESOE Capstone (Feb 2020-June 2020)
- This team project requires us to design and 3d print a boat before controlling it to complete navigation tasks autonomously with an STM32 microcontroller and HC-SR04 ultrasonic distance sensor
- My main contribution in the project is designing the circuit setup for the STM32 and the sensor layout on the boat as well as writing the necessary control algorithms for the navigation tasks

HONORS

6th place, Virtual RobotX 2019, held by RobotX online (May 2019-Nov 2019)
- Controlled a virtual robot in Gazebo environment based on prototype given by RobotX, competed with team Tang
- Contribution includes creating a simple object detection algorithm from lidar point cloud on ROS Melodic before constructing the whole system with the entire team

TECHINICAL SKILLS

Languages: Chinese, English
Programming languages: Python, MATLAB, Java, C, C++, SQL