Ming-Hung Yen

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Education

Stevens Institute of Technology	Hoboken, NJ
Master of Engineering in Computer Engineering	08/2021 – 05/2023
National Ilan University (NIU)	Ilan City, Taiwan
Bachelor of Science in Electrical Engineering	09/2016 – 06/2020

Technical Skills

Languages: C/C++, Python, JAVA, SQL, JavaScript, HTML/CSS, VHDL, Verilog

Frameworks: Django, React, Next.js, Express

Developer Tools: Git, Docker, Docker Compose, ROS, PostgreSQL, MongoDB, Google Cloud Platform

Experience

Graduate Student Research Assistant — Hoboken, NJ
Stevens Institute of Technology — 06/2022 – 08/2022

- Deployed **5** different path planning navigation algorithms through ROS on robotics hardware.
- Demonstrated trajectories of different algorithms and evaluated them on **6** different test scenarios e.g. TEB algorithm took more time than others in the scenario of **10** different dynamic obstacles
- Used RViz and Gazebo for robot simulation and visualization, and worked on setting up an Ouster Lidar, with an NVIDIA Xavier to collect metadata and create a point cloud of its surroundings

Network Management Engineer (IT) — Taipei City, Taiwan
Kuanghui International Travel Service co., Ltd. — 08/2020 – 07/2021

- Established a new Network Attached Storage (NAS) system, helping improve digital files transformation reducing 3**0** labor hours per month in total estimated
- Created permissions for various accounts and maintained hardware for a global network environment including routers, switches, firewalls, wireless controllers

Engineer Internship (NIU's Off-Campus Internship Program) — Ilan County, Taiwan
Hi-Nano Optoelectronics Co., Ltd — 03/2020 – 05/2020

- Developed C++ imagine processing program with OpenCV for industrial manufacturing machine, helping **reduce 1000 USD per month** from the previous subscription.
- Operated machines of product line, including establishing automation coordinates on a machine and writing firmware program for ethernet industrial camera.

Selected Projects

Smart Home | Python, Html, C/C++, Arduino, Raspberry Pi — 12/2017 – 02/2018

- Connected Raspberry pi3 with Arduino by using general-purpose input-output method along with web camera, LED array, fan, and temperature humidity sensor
- Acquired data from every sensor and Livestream, posted on HTML web page

Air hockey machine | C++, OpenCV, ROS, MATLAB, Simulink — 09/2018 – 05/2019

- Implemented Simulink to control robotic arms to play air hockey with human
- Written program with image processing tasks, which allowed our machine to see hockey punk and forecast the location and speed of punk
- Used MATLAB to construct the virtual XY coordinate of the table and implemented ROS (Robot Operating System) to connect different programming environments