

CHEN(GORO) YEH

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EDUCATION

National Tsing Hua University Hsinchu, Taiwan, R.O.C
Bachelor of Science in Interdisciplinary Program of Engineering Expected June 2021
First Specialty: Power Mechanical Engineering (PME) - Electrical Control Group
Second Specialty: Computer Science Engineering (CS)
minor: Space Technology and Engineering Program
Overall GPA: 4.11/4.3 **Major GPA:** 4.25/4.3
Relevant Courses: Artificial Intelligence for Robotics, Control Systems, Embedded Systems,
Mobile Robots, Machine Learning, Attitude Determination and Control of Spacecrafts

AWARDS AND CERTIFICATES

Academic Achievement Awards - recieved 4 times (ranked 1st out of 45 students) Oct 2018 - Oct 2020
Embedded Systems Contest - Honorable Mention Award (NTD 500 awarded) Jan 2020
Student Formula Japan - Ranked 33th out of 93 teams (Electric Vehicle: 4th out of 23 teams) Sep 2018
IPE Self-Planning Competition - 1st place (NTD 15000 awarded) May 2018
Robotics - by Pei-Chun Lin, Coursera Oct 2020
Deep Learning and Neural Network - by Andrew Ng, Coursera Sep 2019
Young Entrepreneurs of the Future - Advance to the final Feb 2019 - Jun 2019

RESEARCH AND PROJECT EXPERIENCE

Reinforcement Learning on Robotic Arms Feb 2020 - Present
Advisor: Professor Chung-Ta King Parallel and Distributed Systems Lab
· Accomplished a model based on Deep Deterministic Policy Gradient algorithm for a robotic arm grab-task.
· Established an environment in Webots and connected to our DDPG model using socket protocol.

6U Cube Satellite Mission National Space Organization
Advisor: Professor Cheng-Yu Chan Mar 2020 - Jul 2020
· Utilized CAN bus and UART to simulate the mode transition on a 6U cube satellite.

Magnus Effect Plane Intelligent Multiscale Thermofluids Lab
Advisor: Professor Ming-Tsang Lee Feb 2019 - Dec 2019
· Created an aircraft that could fly temporarily using the principle of Magnus Effect in fluid mechanics.

PID Ballance Ball and Beam - Logic Design Lab Course Sep 2019 - Jan 2020
· Fulfilled a self-balancing ball and beam system that can sustain the ball at the specified location with less than 1mm error under disturbances and noises.
· Accomplished the PID control algorithm using Verilog language and FPGA Board.

Attitude Control Guidance of Spacecraft - Attitude Control of Spacecrafts Course Mar 2020 - Jun 2020
· Invented a control guidance algorithm of a spacecraft with star trackers using Matlab Simulink.
· Realized Bdot control of a spacecraft to perform stable attitude performance.

Planetary Gear Reducer - Mechanical Design Course Sep 2019 - Jan 2020
· Designed a planetary gear reducer for a racing car given specified reduction ratio, power, reliability, strength.

WORK EXPERIENCE

Industrial Technology Research Institute Jul 2020 - Present
Robotics Intern
· Accomplished a ROS packages that allowed the wheeled robot to navigate the environment
· Established a skid-steering outdoor mobile robot with reliable hub motors and motor drivers.

National Center for High-Performance Computing Aug 2019 - Oct 2020
Machine Learning Intern
· Realized a convolutional neural network to complete image classification tasks with 94% testing accuracy using Keras and Tensorflow.

SKILLS

Programming Languages	C / C++ / Python / HTML / CSS / JavaScript
Robotics & Machine Learning	ROS / Gazebo / Webots / Linux / Pytorch / Tensorflow / Keras
Mechanical & Electronics	Arduino / Raspberry Pi / stm32 / Solidworks / Inventor / AutoCAD
Tools	Matlab / Simulink / Verilog / FPGA / LTSpice / Cocos Creator / Latex
English Ability	TOEFL iBT: R:29 / L:30 / S:23 / W:28, total:110 GRE Verbal: 155 / Quantitative: 165 / Analytical Writing: 4.0

EXTRACURRICULAR ACTIVITIES

Baseball Varsity Team, NTHU	Sep 2017 - Jan 2020
· The first and only female player in the team who made hits on real competition.	
Director of Activities, Student Association of NTHU IPE	Jun 2019 - Jun 2020
· Held and organized department activities for the whole year.	
Tsing Hua International Young Ambassador, Office of Global Affairs, NTHU	Aug 2019 - Jun 2020
· Host guests and assist the university global association.	
Denmark international volunteer (MS04 woodwork construction)	Jul 2018
· Reconstruct a tourist spots and built wooden benches for the park.	