### PERSONAL INFORMATION

First Name, Surname: Yu-Wen, Chen

Date and Place of Birth: 13th August 1996, Taiwan

Phone: +49 15734522416

Address: Rütscher Str.175, Zi. 0405, Aachen, 52072, Germany

E-mail: yu.wen.chen@rwth-aachen.de GitHub: https://github.com/airuchen/

Portfolio: https://airuchen.github.io/

### **EXPERIENCE**

### Advanced Robotic Platform Group, ADLINK

ROS R&D Intern

ROS, ROS2 robot design, prototype, implementation, and documentation

Developed, from initial, a mobile robot named NeuronBotll that supports ROS and ROS2.

Mobile robot inspection with ROS2 behavior tree

Ported state machines on ROS to ROS2.

ROS multiple-robots inspection

Coordinated 3 mobile robots inspecting in the same field.

Implemented the costmap layer that collects locations of robots.

## **Compulsory Military Service**

Sep. 2018 - JAN. 2019

## Mobile Autonomous Systems and Cognitive Robotics Institute, FH Aachen Feb. 2018 – Jun. 2018

Undergraduate researcher

6-axis UR5 eye-in-hand Visual Servo Control via ViSP Library and ROS

Controlled UR5 with Movelt, and Simulated it in Gazebo.

Adapted model-based tracking in Visual Servo Platform(ViSP) to track objects with RGB camera.

Multiple UAVs cooperation task in ROS simulation

Coordinated 4 quadrotors to pick up objects in Gazebo simulation world.

Processed images with OpenCV and communicated through ROS

# **Medical Robotics Laboratory, NTUST**

Feb. 2016 - Jun. 2018

Undergraduate researcher

Teen-size Serial Humanoid robot

- Developed a 100-cm-tall serial humanoid robot that can perform sport behaviors.
- Designed circuits.
- Implemented competition strategies and finetuned locomotion.
- 5-axis Industrial Parallel Robot Arm
  - Design 3-Kg payload parallel robot arm
  - Simulated kinematics with MATLAB and implemented on Arduino.
  - Programmed user interface with C++.
- 3-axis Hand-writing Robot Arm
  - Developed 3-axis hand-writing robot with APP interface.
  - Simulated kinematics and speed control with MATLAB



Sep. 2019 - Feb. 2020

# **EDUCATION**

RWTH-Aachen Aachen, Germany

M.Sc. in EE, IT, CE (Systems and Automation)

Mar. 2020 – now

**FH Aachen University of Applied Sciences** 

Aachen, Germany

Exchange Student Feb. 2018 – Jun. 2018

 Selected Coursework: Robot Programming with ROS, Advanced Robotics and Autonomous Mobile Systems, Advanced Project Management

## National Taiwan University Of Science and Technology (NTUST)

Taipei, Taiwan

B.Sc. in Electrical Engineering

Sept. 2014 - Jun. 2018

- GPA: 3.76/4.0, ranking: 15/95
- Graduation Project: Autonomous Patrol Robot Applying in Automatic Factory (3<sup>rd</sup> place of Project Popularity Award)

## **EXTRACURRICULAR ACTIVITIES**

Skateboard Club, NTUST	Jul. 2015 – Jun. 2016
Director	
Dormitory Committee, NTUST	Jul. 2014 – Jul. 2016
Student Congress, NTUST	Jul. 2014 – Jun. 2015
Loader of International Section	

Leader of International Section

### **HONORS**

2 <sup>nd</sup> Place, RoboCup TeenSize Humanoid League Soccer Game in Japan (Humanoid soccer robot in fully automation)	Jul. 2017
1st Place, FIRA RoboWorld HuroCup Adult Robots (Athletic robot doing marathon, archery, obstacle run, weightlifting, etc.)	Aug. 2017
1 <sup>st</sup> Place, Intelligent Humanoid Robotics HuroCup Adult Robots Taiwan (Athletic robot doing marathon, archery, obstacle run, weightlifting, etc.)	May. 2017
<b>Honorable mention</b> , Robot Competition – Domestic Industrial Robot (Industrial 5-axis parallel robot arm design and implementation)	Sept. 2016
3 times, NTUST Top 10% Academic Excellent Award	2015 – 2017
<b>Approx. 4,300 Euro Scholarship</b> , Lin-Xiong Zheng Academic scholarship (Top 50 Taiwanese students with excellent academics and competition achievement)	Dec. 2017

### **SKILLS**

Robotics: ROS, ROS2

Programming language: C, Python, HTML, Kernel script

Operating System: Linux Version Control: Git

**Simulation and Analysis:** MATLAB

Embedded System: Arduino, Raspberry pi Language: Mandarin (Native), English (Fluent)