

# CHANG TING-WEI 張庭瑋

🔗 Personal Website / 🔗 GitHub

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## EDUCATION

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- **National Cheng Kung University** Tainan, Taiwan  
*Bachelor in Computer Science* Sept 2021 – Present
- **Daan Vocational High School** Taipei, Taiwan  
*Department of Information and Computer Science* Sept 2018 – Jun 2021

## EXPERIENCE

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- **Taiwan Space Agency, TASA** Tainan, Taiwan  
*Avionics Software Intern* Jul 2023 – Aug 2023
  - **Embedded hypervisor for safety critical system:** Evaluate the lightweight, open-source embedded hypervisor which aims at providing strong isolation and real-time guarantees.
- **CSIE, NCKU** Tainan, Taiwan  
*Teaching Assistant* Feb 2022 – Jun 2023
  - **Computer System And Network Administration:** Lecturer. Maintaining the online judge system. Preparing midterm exam and homework.
- **Institute of Space Propulsion, NCKU** Tainan, Taiwan  
*Avionics Leader* Sept 2021 – July 2024
  - **Avionics Firmware:** Developed the firmware and applications for rocketry control and telemetry.
  - **Circuits Design:** Designed, implemented the flight computer using KiCAD for flying vehicles.
- **Formula SAE, NCKU** Tainan, Taiwan  
*Electrical Team* Sept 2023 – Present
  - **Automotive Hardware/Software:** Researching the automotive firmware and circuit design. Implementing the essential algorithms for the torque vectoring system.
- **Goodtogo 人嶼物股份有限公司 - 好盒器** Taipei, Taiwan  
*Software Developer Intern* Jul 2022 – Aug 2022
  - **Web Development:** Maintaining the web management system involving front-end and back-end technology such as reactjs, nextjs and mongoDB.
  - **Embedded System Development:** Working on Raspberry Pi and CAT-M1 protocol to develop a cheap solution for IoT device communication.

## PROJECTS

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- **NCKU CSIE Project Design:** Integrates MEMS-grade IMUs and GPS to improve high-dynamic vehicle positioning and enhance navigation precision despite IMU noise.
- **NCKU CSIE Special Admission:** Admission to universities based on talents and achievements in special areas rather than academic performance.
- **Owl Ground Station:** A pure javascript ground station for model rockets real-time monitoring and communication. 🔗 <https://owl.wilicw.dev>
- **ISP32 Avionics Board:** An ESP32 base rocket avionics board integrates GPS, LoRa and a variety of sensors.
- **2020 AIS3:** A 7-days summer camp of advanced security course held by MOE.
- **Course Choosing Website:** Designed a course choosing and distributing website for students at TAIVS.
- **Project Demonstration Website:** A online platform to demonstrate and manage the projects for high school students. 🔗 <https://info.taivs.tp.edu.tw/topic>

## COMPETITIONS

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- **2023** Mei-chu Hackathon (NXP Semiconductors) – 3rd
- **2023** 53rd National Skills Competitions (Cyber Security) – 4th
- **2023** AIS3 EOF CTF Final Participant
- **2022** Mei-chu Hackathon (STMicroelectronics) – 1st
- **2022** Taipei Metro Hackathon Final Participant
- **2020** Executive Yuan Golden Shield Information Security Contest – 1st
- **2020** 50th National Skills Competitions (IT Network Systems Administration) – 4th
- **2020** National High School Skills Competition (Computer Repairing) – 5th
- **2020** Zyxel CTF Final Participant
- **2019** MyFirstCTF – Bronze Award

## SKILLS

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| • <b>System Administration:</b> Linux / Docker / Networking   | <b>Cyber Security:</b> Web Security / Forensic             |
| • <b>Web Development:</b> Flask / Expressjs / Vuejs / Reactjs | <b>Circuit &amp; Electronics:</b> Circuit Design / Verilog |
| • <b>Languages:</b> C / Javascript / Python                   | <b>Embedded System:</b> STM32(Arm) / FreeRTOS              |