

吳維文 (Wei-Wen Wu)

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Chiayi, Taiwan

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weiwenwu.pages.dev

Education

2024.09 – 2026.08 | M.S.

National Chung Cheng University · Inst. of
Electrical Engineering (AI Lab)

2020.09 – 2024.06 | B.S.

I-Shou University · Dept. of Electrical
Engineering

Academic Projects

2025.07 – 2026.06 | Master's Thesis

A Study of Metal Pattern Design
Generation for Patch Antennas Based on
an Adaptive Cyclical Policy and Spectral
Connectivity Loss Function

2023.02 – 2024.01 | Capstone Project

Research and development of robotic arm
visual grasping system (Showcase –
Distinction)

Publication

2026.08 | URSI GASS 2026

A Data-Free Patch Antenna Generation
Framework via Two-Stage Gradient
Exploration and BiScaleNorm

Awards

2024.03 | 20th National Electronics Design
Contest

Jia-Yun IoT Special Award

2020.05 – 2020.07 | AIGO AI Grounding
Program

Top 3 Outstanding Team

Core Skills

AI / ML

Python, PyTorch, Computer Vision, YOLO,
Gradient Estimation, HFSS

Robotics

ROS / ROS2, MoveIt, libfranka, RealSense,
OpenCV, Webots

Software

C / C++, Rust, PHP / C#, JavaScript, SQL /
PostgreSQL, Docker, ELK, Git, Linux /
macOS / Windows

Professional Experience

2025.09 – 2026.06 | Research Assistant

6G RIS Prototype Platform

2025.07 – 2026.06 | Industry Collab.

ASE · mmWave AiP & AI Antenna Design

2024.10 – 2026.06 | Developer

Admissions Committee · ELK Log

Analytics + Multi-User Project Scheduler

2024.09 – 2025.06 | Research Assistant

NFR Modeling for Intelligent Systems

2023.07 – 2023.09 | Freelance Developer

Dental Lab · Custom inventory-and-accounting
ERP

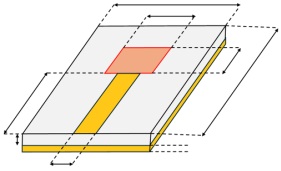
2022.09 – 2024.06 | Research Assistant

Upper-Limb Exoskeleton for Rehab

2022.09 – 2023.06 | Industry Collab.

Teng-An · ROS Arm Control (Franka
Panda)

Selected Projects



M.S. Thesis

GEN / HFSS / ACP / SC Loss / DLF

GEN makes non-differentiable EM simulation optimizable; ACP addresses local optima, SC Loss penalizes disconnected metal, and DLF improves sample efficiency. SC Loss raised feed connectivity to 61.98%; DLF improved minimum loss by >50% vs. baseline.



Undergrad Capstone

YOLOv7 / RealSense D435 / OpenCV / AR3

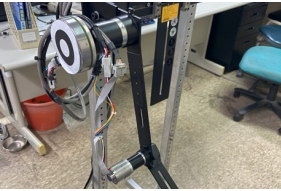
Trained YOLOv7 on 549 images (6 classes, mAP@.5 $\approx$ 0.9); fused depth imaging and OpenCV pose estimation with AR3 control for recognition, localization, angle estimation, and automated grasping.



Dental Lab ERP

Full-Stack / DB / Requirements

Solo full-stack delivery from requirements interviews and system design through development, DB sync, and handover of a custom inventory-and-accounting ERP.



NSTC Project

MATLAB / EMG / Force Est. / HRI

Upper-Limb Exoskeleton Force Estimation

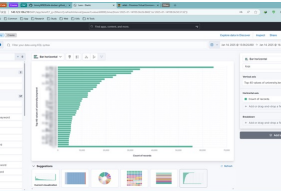
Two-year RA; built EMG-based force-estimation and posture-recognition models in MATLAB for rehabilitation and HRI.



Teng-An Industry Collab.

ROS Noetic / libfranka / MoveIt / Ubuntu

Built ROS Noetic on Ubuntu and integrated the Franka Emika Panda driver for real-time motion control and simulation sync, with a reproducible setup flow.



Admissions Committee – M.S. Y1

ELK / Logstash / Kibana

Used the Elastic Stack to analyze system logs with dashboards and query pipelines.



Admissions Committee – M.S. Y2

PHP / CI4 / PostgreSQL

Built a multi-user project scheduler to improve task assignment and schedule tracking.



CCU Comm. Eng. Asset Mgmt.

Full-Stack / CRUD / Access Control

Built a web-based asset-management system for check-out/return, live status, history/audit queries, and inventory management.

Portfolio

Project images, demos, technical details & academic documents

Visit the URL below or scan the QR code

<https://weiwenwu.pages.dev>

