

# KAI-HSIN, HUNG

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## EDUCATION

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**Ming Chi University of Technology (MCUT), New Taipei City, Taiwan**

Jun. 2023

## WORK EXPERIENCE

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**Formosa Plastic Group**

Nov. 2021 - Sept. 2022

Internship

- Collated Linear Low-Density Polyethylene (LLDPE) factory pipeline data, categorizing specifications by material, diameter, and length to hasten pipeline repairs
- Utilized ultrasound equipment for pipeline analysis to verify completion and mitigate pipeline issues, resulting in a 15% reduction of pipeline leaks

**Taiwan Industrial Research Institute**

Sept. 2021 - Oct. 2021

Internship

- Executed welding procedures to manufacture a reference solar cell in accordance with the World PV Scale Standard (WPVS), enabling the manufacturer to use it for calibrating the solar cell test machine
- Utilized Four Point Probe equipment to assess the solar cell chip, aiming to reduce the product defective rate by 2%

## SKILLS

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Computer Programming: (Proficient)Python ; (familiar)MATLAB, TensorFlow

Language:(Native) Mandarin ; (Proficient)English

## PROJECTS

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**Light-driven actuator based on Graphene Oxide/PVDF-HFP double layer films**

Sept.2022 - May. 2023

- Developed a multi-responsive actuator by combining Polypyrrole (Ppy)/Polydimethylsiloxane (PDMS) with Graphene Oxide(GO)
- The product showcased exceptional durability, capable of multiple actuations without the need for external energy
- By differentiating the coefficients of expansion for Ppy and GO, the material can exhibit responsiveness to electronic stimuli, humidity, and heat

**Face Mask Detector**

Jun. 2022 - Aug. 2022

- Achieved advanced image processing and machine learning tasks using Python with OpenCV and TensorFlow
- Detected whether individuals are wearing face masks correctly, ensuring a reliable and efficient solution for monitoring compliance with safety measures
- Implement automatic recording of attendance using facial recognition technology to track the arrival and departure times of personnel

## **LEADERSHIP**

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### **Materials Science and Engineering Student Association**

Jun. 2020 - Jun. 2021

#### Equipment Department

- Coordinated a three-day event for 100 participants to introduce the Material Department to incoming freshmen
- Advocated the adjustment of course schedules to safeguard students' rights within the department

### **Student Association**

Jun. 2020 - Nov. 2020

#### Equipment Department

- Collaborated with the Extracurricular Activity department from the university to organize equipment testing sessions for students
- participated with multiple departmental societies to seamlessly coordinate a two-day, 250-person club exhibit tailored for incoming freshmen

### **International Volunteer, Chinese Rock Leadership Association**

#### **Thailand**

Aug. 2016 - Sept. 2016

- Provide interactive teaching that incorporates both Chinese and English styles to offer local children better educational resources
- Enhance the infrastructure of local elementary schools by employing methods such as painting and other decorative techniques to contribute to beautification

#### **Nepal**

Aug. 2013 - Sept. 2013

- Contribute manpower and resources to assist in the construction of additional classrooms for local elementary schools, thereby improving the learning environment for the students in the area
- Utilize interactive teaching methods and supplementary educational materials to provide schools with additional resources, enabling students to benefit from enhanced learning approaches