# Yu-Hsi (Issy) Tsai

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Electrical and computer engineering student at Rice University with experience and interest in embedded systems, signal processing, and machine learning. Seeking an internship for Summer 2025 where I can contribute to real-world projects and further develop my technical skills.

## **EDUCATION**

Rice University, George R. Brown School of Engineering | Houston, TX Bachelor of Science in Electrical and Computer Engineering

| Expected May 2028

with Minor in Engineering Design

Coursework: Engineering Design, Computer Engineering, Computational Thinking

## **Taipei First Girls High School**

| Taipei City, Taiwan

Highschool Diploma, Math & Science Gifted Program

| Aug. 2021 - Jun. 2024

Honor roll; Cumulative GPA: 3.88/4.00; SAT Score: Math 800 | EBRW 790

#### **PROJECTS**

## **Assistive Device for Blind Dog**

Aug. 2024 - Current

Team Kunde's Friends, Rice University

- Designing a device to help a blind dog navigate its environment
- Corresponding with clients ensuring smooth communication

# **Noise Pollution Tracking Camera System**

| May 2022 - Feb. 2024

Academia Sinica

- Designed novel solution for reducing noise pollution from modified vehicles
- Developed camera system able to track a sound source automatically in Python
- Utilized low-cost hardware such as Raspberry Pis
- Implemented object detection algorithm (YOLO) to identify noise pollutants
- Finalist at Taiwan International Science Fair 2024

## **EXPERIENCE**

## **Volunteer English Museum Docent**

| Taipei City, Taiwan

National Taiwan Museum

| Sep. 2023 - Aug. 2024

- Led weekend museum tours for 200+ visitors facilitating cross-cultural understanding
- Presented in museum seminar on the topic "Cultural Preservation a Highschooler Perspective"
- Invited to speak on museum's official podcast on behalf of volunteer program
- Selected to lead tour for attendees of 2023 ICOM COMCOL Conference

## **Machine Learning Intern**

Remote

Industrial Technology Research Institute

| Aug. 2023 - Sep. 2023

- Oversaw quality control for model training dataset of 3000+ images
- Automated a reformatting process for image labels in Python
- Communicated with colleagues to ensure swift and accurate completion of tasks

#### **SKILLS**

**Computer Skills** Python | C++ | Matlab | SolidWorks | Microsoft Office Languages & Soft Skills English | Mandarin | Cross-cultural Communication