

Naomi Chen

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🌐 <https://github.com/NYTCEE>

EDUCATION

National Taipei University of Technology

Sep 2022 – June 2026

Bachelor in Electronic Engineering

Taipei Municipal Zhong Shan Girls High School

Sep 2019 – June 2022

CAPSTONE PROJECT

Leveraging SCNet ResNet-50 and MEC-CNN for Efficient Instance Segmentation and Object Detection

Machine Learning and Hardware Acceleration (Chip Design)

This work integrates SCNet-ResNet-50 with MEC-based CNN acceleration to enhance instance segmentation and object detection. Software optimizations address training inference inconsistencies, while MEC boosts computational efficiency, providing a scalable deep learning solution.

PROJECTS

University Course Management System

Developed in C with full account management, including password reset via username or birthdate. Teachers can create courses and generate schedules, while students manage electives through an intuitive interface.

Interactive Music Box

Built an interactive music box using FFT and p5.js for real-time visualization and user interaction.

Personal Website

Designed and implemented a personal interactive website hosted on GitHub, featuring p5.js integration for dynamic music generation and playback through visual interfaces.

Android Mini Arcade App

Developed an Android mini arcade app with multiple game modes and custom settings. Used Render API for backend and Unity for entrance animations to enhance UX.

Apriltag Detection Package for TurtleBot3

Create ROS2 packages for apriltag detection and obstacle avoidance deployed on TurtleBot3.

MEMBERSHIPS

ZSGH Skateboard Club - President

- Recruited new advisor during vacancy
- Hosted interschool winter camp
- Led joint orientation with 12 schools

NTUT Programming Club - Member

NTUT Robot Club - Member

MIT City Science Lab @ Taipei Tech - Spring UROP

ACTIVITY / AWARDS

NTU Micro Course - Introduction to New Energy Vehicles

Electric Vehicle Racing Competition
Team Championship

NTUT Robot Club CR Contest

1st Place & Best Mechanism Design

AI on Wheels Hackathon

MIT City Science Lab @ Taipei Tech

EMI Circuit Theory Presentation

Circuit Design Showcase - Variable DC
Power Supply for Vehicles
2nd Place (out of 24 Groups)

SKILLS

Programming Languages

C, C++, Verilog, Python, Java, JavaScript, Kotlin, HTML, CSS, p5.js, C#, SQL, jQuery, PHP, Vue.js, Node.js

EDA Tools

Cadence Virtuoso / Innovus / NC-Sim, Synopsys Verdi / VCS / Laker

Development and Engineering Tools

Linux, Git, OpenCV, PyTorch, ROS2, AprilTag, FPGA, MATLAB, MMdetec-tion, Fusion 360

CERTIFICATIONS

GEPT Advanced (CEFR C1)

GEPT High-Intermediate (CEFR B2+)

GSAT English 15/15, Listening Grade A

International Lifeguard and CPR Certified

iPAS Certified Color Planning Specialist

(Issued by Taiwan Ministry of Labor)

OTHER COURSES

Intro to CS, Digital Logic Design & Lab, Electronics I&II, Circuit Theory I&II, Object-Oriented Programming, Computer Organization, Data Structure and Algorithm, Microcomputer Lab, FPGA System Design, VLSI Design, Machine Learning