

Payne (Pei En) Yeh

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Education

National Taiwan University (NTU)
MS in Atmospheric Sciences (*On Leave*)

Sep 2026 – Jun 2028 (Expected)

National Central University (NCU)

Sep 2020 – Jun 2024

BS in Atmospheric Sciences | AI Application Credit Program | 2024 NCU Outstanding Student Scholarship

Skills

- **Languages:** Python, C/C++, SQL, JavaScript, Dart (Flutter)
- **Backend:** Django, Flask, Selenium, PostgreSQL, RESTful APIs
- **DevOps & Infra:** Git, GitHub Actions (CI/CD), Docker, Linux, Cloudflare R2, Firebase
- **AI/ML:** PyTorch, TensorFlow, Scikit-learn

Awards & Competitions

- **1st Place**, NCU Sustainable Innovation Proposal Competition (2023)
- **2nd Place**, Weather Hackathon (2023) (*Previously 3rd Place in 2022*)
- **Finalist (Notable Award)**, National Smart Innovation Cross-disciplinary Competition (2023)

Work Experience

Freelance Backend Developer

Python (Flask), RESTful APIs, PostgreSQL, TDD | Apr 2025 – Oct 2025

- Developed Python Flask RESTful APIs following Test-Driven Development (TDD) principles.
- Designed PostgreSQL database schemas and created indexes to optimize high-frequency queries.

Ernst & Young (EY) Consulting – Web Development & Cybersecurity Intern

Python (Django, Selenium), SQL | Mar 2024 – Jul 2024

- Architected an automated bidding crawler and search system based on Django MVC architecture.
- Optimized Python Selenium scraping scripts to process and structure thousands of external records.
- Analyzed banking AI and cybersecurity trends to assist in system compliance assessments.

Selected Projects

Taiwan AI Weather App | [Github] | Flutter, Python, GitHub Actions, Firebase, Cloudflare R2

Demo: <https://reurl.cc/O6ERE3>

- Built a scalable decoupled architecture using Flutter, Python, Firebase, and Cloudflare R2.
- Automated CI/CD pipelines via GitHub Actions and implemented R2 caching to minimize server load.
- Integrated Firebase App Check and FreeRASP for multi-layer security against unauthorized API access.

MQTT-based IoT Smart Classroom | C/C++, MQTT, ESP32, YOLOv8

Demo: <https://reurl.cc/2a8lk9>

- Developed ESP32 MCU (C/C++) and a Raspberry Pi MQTT broker for real-time sensor control.
- Integrated YOLOv8 for real-time occupancy counting to automate HVAC and lighting control.
- Awarded Finalist in the National Smart Innovation Cross-disciplinary Competition.