# Wei-Chun Tseng

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## **EDUCATION**

## National Taiwan University | Taipei, Taiwan

07/2021 - 08/2023

Master of Science in Computer-Aided Engineering, Civil Engineering (4.0/4.3).

• Key Coursework:

Object-Oriented Programming, Data Structure and Algorithms, Web Development, Machine learning and Deep learning, Computational Statistics, Financial Technology.

• Teaching Assistant:

Directed a data analytics and machine learning curriculum, enhancing students' problem-solving abilities for key energy sector challenges.

#### National Central University | Taoyuan, Taiwan

07/2017 - 06/2021

Bachelor of Science in Civil Engineering (3.8/4.0)

• Achieved **5-time** Academic Excellence Awards (**Top 5%** of the department).

### **PROJECTS**

**Recipe API** 04/2024

A comprehensive REST API for managing and storing recipes.

- Developed a classification and authentication system, elevating operational safety and boosting efficiency.
- Keywords: Python, Django, Docker, GitHub Actions, PostgreSQL, Test-Driven Development, AWS.

Mapin 09/2023

- A user-friendly web application that enables users to share and discover places.
- Resolved the issue of outdated information in traditional travel guides by providing the latest updates directly from user contributions.
- Keywords: JavaScript, React.js, Express.js, MongoDB, Node.js, Mapbox API.

#### NTU CAECE NFT Certificate System

08/2022

- A Blockchain-based system for issuing NFT digital certificates for internship programs.
- Addressed traditional paper certificate challenges, reducing fraud risk and improving sustainability.
- Keywords: JavaScript, Node.js, React.js, Smart Contract.

#### WORK EXPERIENCE

## E3 Research Group @ NTU | Research Assistant

08/2023 - 11/2023

- Accomplished data analytics models with **Python** and bootstrap-based modeling framework to evaluate the carbon reduction potential of electric vehicle transition.
- Succeeded in increasing policy review frequency by 12-fold and reducing implementation costs by 80%, significantly improving efficiency and effectiveness in environmental strategy execution.
- Headed a 10-member team in **2023 Presidential Hackathon**, emerging as one of the top 20 teams in the final round among 150+competitors.

## E3 Research Group @ NTU | Graduate Student Researcher

07/2021 - 08/2023

- Developed data processing pipelines capable of efficiently managing over 10 million records of power generation data.
- Conducted detailed analysis of electric vehicle emissions with consideration for the high temporal and spatial variability of the power grid, identifying key areas for improvement.
- Received the <u>Excellence Award</u> at the 2022 Unicorn ESG Technology Poster Competition.
- Published findings in a Q1-level international journal, contributing to advancements in sustainable practices.

## **SKILLS**

- **Programming**: Python | SQL | JavaScript | C | C++ | HTML | CSS
- Web Development: Django | FastAPI | Node.js | Express.js | AWS | React.js | Vite.js | TailwindCSS
- Tools & Database: Git | GitHub | GitHub Actions | Docker | Linux | PostgreSQL | MySQL | MongoDB
- Data Science: NumPy | Pandas | SciPy | PyTorch | Scikit-Learn