

# WEI-CHIH HUANG

✉ [noctildon2@gmail.com](mailto:noctildon2@gmail.com) | [in /in/wei-chih-huang](https://in.linkedin.com/in/wei-chih-huang) | [noctildon](#) | [Personal Site](#)

## EDUCATION

**PhD in Physics**, Texas A&M University, US  
**BS in Physics**, National Tsing Hua University, Taiwan

Aug. 2019 - Aug. 2025 (expected)  
Aug. 2015 - Jun. 2019

## EXPERIENCE

**Quantitative Engineer** - [Aggie Quant Fund](#) Jan. 2024 - present

- Used cloud and local LLM and GitHub Actions to extract information from finance market news feed periodically
- Benchmarked, tested and validated trading strategies (outperform S&P500 by twice)
- Managed \$100,000 fund and developed models for stock forecasting and portfolio optimization
- Built a high-performance backtest framework supporting automatization and visualization and saved 70% of time

**Research Assistant** - Physics Department, Texas A&M University ([researcher profile](#)) Aug. 2019 - present

- Designed machine learning models to reduce 90% of time on particle simulation
- Built physics models and conducted the statistical analysis on 1000M rows of multi-dimensional data by Python
- Automatized and visualized the analysis with NumPy, SciPy, Pandas, and Matplotlib to save 90% of time
- Accelerated the analysis by 1000 times with dedicated algorithm, multiprocessing, caching, and C++
- Published 7 papers in high impact journals and presented several successful talks at international conferences

**Independent Data Science Researcher** - Pro Cyclists Race Analysis ([Github repo](#)) Apr. 2022 - present

- Construct machine learning models with PyTorch and scikit-learn for prediction (90% accuracy)
- Processed 12M rows of data with NumPy, Pandas, SciPy, scikit-learn, and PySpark
- Saved 80% costs compared to AWS, GCP, Azure by deploying data and model to Runpod (GPU cloud)
- Web scraped a website using BeautifulSoup and increased the performance by 500% with multi-threading

**Full-Stack Web Developer/Project Manager** - [Aggie Coding Club](#) Jan. 2022 - Jan. 2023

- Built a referral machine to reduce the time of networking by 40%
- Developed a dynamic and responsive website using Django (Python) and Bootstrap (HTML, CSS, JavaScript)
- Deployed the website at 0 cost on Heroku
- Designed PostgreSQL database schema to save disk space by 20%
- Led a 10-people team and organized the meetings and the tasks to the team members

**Data Science Ambassador** - Physics Department, Texas A&M University Aug. 2022 - Aug. 2023

- Provided training and consulting to the department and the students ([webpage](#))
- Designed interactive workshops on topics including Python, Linux, statistics, data analysis, and machine learning

## CERTIFICATIONS

- Machine Learning Foundations: Algorithmic Foundations
- Machine Learning Foundations: Mathematical Foundations
- Machine Learning Techniques
- Divide and Conquer, Sorting and Searching, and Randomized Algorithms
- A Crash Course in Causality: Inferring Causal Effects from Observational Data