# WEI-CHIH HUANG

Email ◇ Linkedin ◇ Github ◇ Personal Website

## OBJECTIVE

Physics PhD candidate with extensive data analytical skills, actively seeking opportunities in ***data science/analysis*** within a vibrant and intellectually stimulating learning environment.

## EDUCATION

**PhD in Physics**, Texas A&M University, US — Aug. 2019 - Aug. 2025 (expected)
**BS in Physics**, National Tsing Hua University, Taiwan — Aug. 2015 - Jun. 2019

## INDEPENDENT PROJECTS

**Pro Cyclists Race Analysis** - Data analysis, Machine Learning, Pytorch, Cloud computing — github
Data analysis of professional cycling races and forecast of the outcomes by machine learning models

- Achieved 20% better performance than a trivial model with machine learning models
- Boosted web scraping BeautifulSoup by 500% with multi-threading
- Preprocessed the data (clean, format, normalize) with NumPy, Pandas, SciPy, and scikit-learn
- Saved 80% costs compared to AWS, GCP, Azure by deploying data and model to Runpod (GPU cloud)

## EXPERIENCE

**Project Manager** Aggie Coding Club — Jan. 2022 - Jan. 2023

- Led a 10-people team and developed a dynamic and responsive website using Django (Python)
- Built a referral website to reduce the time of networking by 40%
- Designed PostgreSQL database schema to save the disk space by 20%
- Deployed the website at zero cost with Heroku cloud platform

**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 lectures on topics such as Python, Linux, statistics, data analysis, and machine learning

**Research Assistant** Physics Department, Texas A&M University — Aug. 2019 - present

- Built physical model and conducted the statistical analysis on the large multi-dimensional data by Python
- Accelerated the analysis by 1000 times with multiprocessing, caching, and C++
- Published 4 papers and presented several successful talks at conferences

## PUBLICATIONS

- Probing the dark sector with nuclear transition photons — arxiv
- Inelastic nuclear scattering from neutrinos and dark matter — arxiv
- Short Baseline Neutrino Anomalies at Stopped Pion Experiments — arxiv
- Axion-Like Particle Production at Beam Dump Experiments with Distinct Nuclear Excitation Lines — arxiv

## HONORS AND AWARDS

- **Data Science Ambassador Scholarship** — 2022 - 2023
  Data Science Ambassador Scholarship Program at Texas A&M Institute of Data Science
- **Three Years Tsing Hua University Scholarship (2% acceptance rate)** — 2015 - 2018
  Tuition wavier plus accommodation and textbooks subsidy
- **Undergraduate Research Scholarship** — Fall 2018
  The scholarship for the New Gravity Theory