WeiChun Chang M.Sc. (she/her)

(+1) 512-731-0497
weichun.chang1997@gmail.com
https://github.com/wc23386

Summary

AI/ML engineer with expertise in developing and deploying machine learning models for time series forecasting, anomaly detection, and image recognition. Experienced in AI system design, integration, and optimization, with a strong background in Python, TensorFlow, and PyTorch. Seeking to leveraging machine learning to enhance efficiency, quality control, and decision-making for manufacturing process improvements and data-driven corporate strategy.

Education

Electrical and Computer Engineering, University of Texas at Austin   Texas, USA

M.Sc. in Decision, Information, and Communications Engineering   2023 - 2025 *(expected)*

- Advisor: Prof. Amy Zhang, Hao Zhu, Jessy Li, Joydeep Biswas
- Research Areas: Large Language Models for Robotics, Real World ML Network in social community, RL & Graph & Statistical Modeling in Power Grid System
- GPA: 3.40 / 4.00

Interdisciplinary Engineering, National Tsinghua University   Hsinchu, Taiwan

B.E. in Industrial Engineering and B.S. in Data Science, Minor in Linguistics 2018 - 2023

- GPA: 3.33 / 4.00

Projects

1. **Benchmarking Large Language Models for Implicature-Based Instruction Generation in Mobile Robot Programming Services**   *present*

2. **Multilayered Network ML Analysis of News Credibility and Community Vulnerability to Misinformation: A Case Study of January 6th on Reddit**   *Sep 2024 - Dec 2024*

3. **Carbon-Aware Real-Time Reinforcement Learning Solution Model for Electric Vehicle (EV) Charging & Battery Management Systems**   *Jan 2024 - May 2024*

4. **Weather-Coupled Topology Analysis of Texas Renewable Power Grid Using GNNs and Representation Learning**   *Dec 2023 - Jul 2024*

Internships

Arcus Power Corporation | Data Scientist Intern   2023 - 2024

- Developed and optimized power system models for the Nodal Day-Ahead Market for trading horizons. This involved analyzing transmission system congestion and its impact on market prices.
- Conducted in-depth analysis of Texas's transmission system and congestion, leveraging data-driven insights to inform price forecasting.

Innodisk International Corporation | Firmware Testing Engineer Intern   2023

- Debugged automated tests in Linux and Windows environments, contributing to the quality assurance of firmware products.
- Collaborated with software engineers to design automated tests, ensuring robust firmware functionality and contributing to efficient product development cycles.

Mirle Automation Co., Ltd. | Intellectual Property and Patent Specialist   2022

- Reviewed patents and prepared comprehensive reports, contributing to strategic intellectual property management across Japan, the US, and Taiwan.
- Completed accreditation on the Taiwan Intellectual Property Management System (TIPS), demonstrating expertise in patent procedures and meticulous documentation, achieving accuracy and thoroughness.

SKILLS **Languages**: English, Mandarin. **Programming**: `Python`, `R`, `SQL`.

Skills: Machine Learning (Statistical ML, Deep Learning, Reinforcement Learning, Graph Neural Networks), Generative AI (Large Language Models, Retrieval Augmentation Generation, LangGraph), Data Engineering (ETL, Data Pipelines, API Development)

NON-PROFIT AND VOLUNTEER

Love Binti International Uganda | Account Executive   2017 - 2018
- Co-founded an international non-profit, securing UN funding for critical infrastructure and hygiene education initiatives.
- Developed and implemented educational programs in agriculture, microeconomics, and sanitation to empower women.
- Facilitated donations of computers from ACER and solar panels from TSMC. Delivered data-driven reports to stakeholders to support strategic initiatives.

AWARDS AND HONORS

- **Scholarship Grantee**, Fulbright Researcher & Scholar   2023 - 2025
- **AI Cup Mango Image Recognition Challenge** Taiwan Ministry of Education   2020
- **Academic Scholarship**, National Tsinghua University   2018 - 2022