Chien-Hao (Will) Huang

https://chhuang17.github.io/

Email: will.brown510202@gmail.com
Mobile: +886-978-231-281

Education

- **National Taiwan University** — Taipei, Taiwan
  M.S. in Civil Engineering (Transportation Division) — *Sep 2020 – Jun 2022*
- **Tamkang University** — New Taipei, Taiwan
  B.S. in Transportation Management — *Sep 2017 – Jun 2019*

Experience

- **Garmin Corporation** — Taoyuan, Taiwan
  Business Intelligence Engineer — *Aug 2024 – Present*

  BI Engineer in the Data Science Division (IT Dept.), focusing on production ML model development, deployment, and end-to-end MLOps pipelines.
  - Owned the technical development and productionization of an RMA return forecasting system, building on an existing solution and expanding it into a multi-model production ML system.
  - Designed, trained, and deployed three additional production ML models, extending forecasting horizons to 1–6 months and 7–12 months, all integrated into a unified MLOps pipeline.
  - Implemented automated retraining and hyperparameter optimization using Optuna, with full experiment tracking and model versioning via MLflow Model Registry.
  - Enabled production inference workflows by dynamically loading registered production models, ensuring reproducibility and traceability across model versions.
  - Iteratively refined end-to-end MLOps workflows covering training, registration, deployment, and retraining to support long-term system scalability and maintainability.
  - Collaborated with supply chain stakeholders and senior engineers to translate operational requirements into deployable ML solutions.
- **Gastom (Feng Chun E-Commerce Co., Ltd.)** — Taipei, Taiwan
  Data Scientist — *Jul 2023 – Aug 2024*

  Data Scientist focusing on dynamic logistics optimization and applied machine learning for last-mile delivery operations.
  - Developed a dynamic route optimization system to support real-time delivery decision making under operational constraints.
  - Designed rule-based clustering logic to partition delivery orders using domain knowledge and operational rules from logistics specialists, improving routing feasibility and scalability.
  - Applied Google OR-Tools to solve vehicle routing problems with capacity and scheduling constraints in production delivery workflows.
  - Built an ETA prediction model using XGBoost based on historical GPS and delivery data to support downstream planning and user-facing features.
  - Collaborated with logistics and operations teams to translate real-world delivery practices into executable optimization and machine learning solutions.
- **CECI Engineering Consultants, Inc. Taiwan** — Taipei, Taiwan
  Transportation Engineer — *Sep 2022 – Jun 2023*
  - Conducted data-driven analysis of traffic and weight-in-motion (WIM) data using Python to evaluate pre- and post-implementation system performance.
  - Applied statistical testing and traffic flow analysis to assess system effectiveness and communicated analytical findings through technical reports to stakeholders.

Projects

- **Highway Traffic Volume & Speed Forecasting**
  2024 National Freeway Intelligence Transportation Competition, Taiwan — *Honorable Mention*
  - Independently designed and built a CNN-based spatial-temporal forecasting model in PyTorch, capturing congestion propagation patterns via upstream/downstream detector features.
  - Built a data ingestion pipeline with MySQL for preprocessing and 3-D tensor construction, achieving MAPE below 5% across most road sections.

Skills

- **Languages**: Python, SQL
- **Technologies**: PyTorch, TensorFlow, Apache Airflow, MLflow, Docker, Git, Kubernetes, QlikSense
- **Expertise**: Machine Learning, Time-Series Forecasting, Applied Optimization, MLOps, Statistical Analysis