

Wei-Hsiang (Matt) Wang

✉ mattwang44@gmail.com | 🌐 mattwang44 | 🌐 Wei-Hsiang Wang | 📞 +886-988-211-953

SUMMARY

- An active contributor and project lead in the Taiwanese Python community
- An experienced Python backend engineer with expertise in cloud-based product development

WORK EXPERIENCE

GoFreight Technology

Apr 2022 - present

GoFreight aims at providing a web-based management system focused on accelerating business growth for Freight Forwarders.

Backend Engineer - Cargo Tracking, Extension & Integration

Human-in-the-Loop Service for Boosting Detection Accuracy (Node.js)

- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.
- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.
- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.

CV Detection Services of Event-based & Stream-based Product (Python)

- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.
- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.
- Developed multiple event-filtering logic based on motion value, deep-learning-model output mask analysis, and human-examining feedback. Raised system automate rate from 40% to 90% while sustaining 10x channel growth.

Umbo Computer Vision

Oct 2018 - Sep 2021

UmboCV aims at revolutionizing the surveillance industry with cloud-based AI systems for detecting human or vehicle intrusion.

Backend Engineer - Cloud AI Team

CV Detection Services of Event-based & Stream-based Product (Python)

- Developed multiple event-filtering logic based on motion value, deep-learning-model output mask analysis, and human-examining feedback. Raised system automate rate from 40% to 90% while sustaining 10x channel growth.
- Improved server throughput by 20% through serving with Gunicorn, handling I/O-bounded tasks asynchronously, and leveraging FFmpeg in GIF generation, with metrics from load testing using Locust as proof.
- Implemented ETL cronjobs deployed to AWS EKS with Helm for importing event metadata to Elasticsearch, which powers the customer usage analysis and system healthiness monitoring.
- Developed operational dashboard for tracking cameras with poor detection accuracy or high resource consumption.

Human-in-the-Loop Service for Boosting Detection Accuracy (Node.js)

- Solved scalability issues by revamping the human-interacting mechanism with AWS API Gateway for WebSocket.
- Enhanced filtration logic based on a time-weighted scoring algorithm that boosted overall automation rate by 8% while achieving 98% recall rate.
- Reduced average request latency by 30% through MongoDB optimization, such as rectifying indexes to accommodate usage patterns, refining queries for index-covered query plans, & adopting read-write separation.
- Built auditing process (by leveraging human resources) with affiliated Grafana dashboards to examine detection accuracy of each product pipeline. Enabled faster response from engineers to any performance deterioration.

COMMUNITY EXPERIENCE

Python Official Documents Translation (zh-TW)

Coordinator & Translator

Jul 2021 - Present

- Standardized translating workflows, systemized translated wordings, and hosted monthly meetups.
- Automated translation source syncing process and established CI/CD pipelines using GitHub Actions.

PyCon Taiwan

Lead/Member - Web Team

Mar 2020 - Present

- Led a team of 11 volunteer developers to maintain the official website and the proposal submission/review platform in Django hosted on GCP.
- Replaced the old Django templates by rebuilding the frontend from scratch in Nuxt.js to benefit from lower maintenance cost and better support of SEO and i18n.