

# Wei-Hsiang (Matt) Wang

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## SUMMARY

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- 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

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### 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.
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#### 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.
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- 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

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### 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.