Kun-Hsiang Lin

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Experience

AI Consultant, Authme — Sep. 2023 – Feb. 2025

AI Team Lead, Authme — Jan. 2021 – Aug. 2023

Senior CV/ML Engineer, Authme — Oct. 2019 – Feb. 2025

- Spearheaded the development of core AI algorithms for key products, delivering both client-side and server-side solutions that met customer requirements, enhanced market competitiveness, and shaped product planning through expert feasibility assessments and detailed blueprints.
- Led cross-platform C++ SDK integration (Android, iOS, WebAssembly), resolving cross-functional challenges between client and backend teams to ensure seamless AI feature delivery and system interoperability.
- Developed 20+ proprietary AI algorithms from scratch, covering Face Processing, Facial Recognition, RGB-based Face Anti-Spoofing, OCR, Knowledge Information Extraction, and Anti-Fraud.
- Built end-to-end MLOps pipelines, including data analysis, model training, evaluation, deployment, inference, monitoring, and continuous iteration to ensure robust, production-ready AI systems.

Highlights

- 2024 – NIST FRTE 1:1 (USA): Ranked 44/371 on Visa-Border dataset; Top 1 in Taiwan
- 2023 – FIME ISO Verification: Achieved ISO/IEC 30107-3 compliance; First in Taiwan
- 2023 – Taiwan AI Award, AI Taiwan Future Conference
- 2023 – Presidential Hackathon Taiwan: Top 20 of 166 teams
- 2023 – CVPR 4th Face Anti-Spoofing Challenge: Ranked 16/66 globally, Top 1 in Taiwan
- 2021 – ICCV Masked Face Recognition Challenge: Ranked 5/160 globally, Top 1 in Taiwan
- 2021 – Cathay Financial: eKYC PoC, Top 1 – 1/5
- 2021 – Standard Chartered: eKYC PoC, Top 1 – 1/4
- 2020 – Taiwan RegTech eKYC Challenge: Group Champion
- 2019 – Line Bank: Face SDK PoC, Top 1 – 1/3

Research assistant, DMID Lab, IIS, Academia Sinica — Aug. 2017 – Sep. 2019

- Develop a spatial-temporal deep model on typhoon rainfall nowcasting.
- External reviewers for ML/DM conferences such as NIPS, KDD, ICML, etc.

Research assistant, Hydraulic and Ocean Engineering, NCKU — Jul. 2017 – Sep. 2017

- Built a drought warning system with C language for the local government.

Education

National Taiwan University, Ph.D. in Computer Science and Information Engineering — Sep. 2024 – Present

- **Research fields:** Computer Vision, Domain Generalization, Anomaly Detection, VLMs, MLLMs
- **Adivisor:** Wen-Huang Cheng
- **GPA:** 4.15 / 4.3

National Taiwan University, M.S.E. in Computer Science and Information Engineering — Sep. 2023 – Jun. 2024

- **GPA:** 4.12 / 4.3 (Rank#1)

National Chen Kung University, M.S.E. in Hydraulic and Ocean Engineering — Sep. 2014 – Jun. 2016

- **Thesis:** Comparison of SVM and RF for Hourly Typhoon Rainfall Forecasting
- **Adivisor:** Pao-Shan Yu
- **GPA:** 3.81 / 4.0 (Rank#1)
- 2016 Scholarship of Chi-Hsin Agricultural Development Foundation (Rank#1 in hydraulic engineering)

National Chen Kung University, B.E. in Hydraulic and Ocean Engineering — Sep. 2010 – Jun. 2014

- **GPA:** 2.94 / 4.0

Technologies

Machine Learning & AI

- Frameworks & Libraries: PyTorch, Lightning, TensorFlow, ONNX, ONNXRuntime
- Expertise: Computer Vision, Biometric AI (Face), Anomaly Detection, VLMs, MLLMs, Digital Image Processing, Model Optimization, Distributed Training, Edge ML, MLOps

Software Engineering

- Languages & Tools: Python, C/C++, Bash Scripting, GitFlow, Docker
- Practices: DevOps, Test-Driven Development, Algorithm Design & Implementation

Research & Leadership

- Experience: AI Algorithm Innovation, Research Prototyping, Team Management

Publications

InstructFLIP: Exploring Unified Vision-Language Model for Face Anti-spoofing
Lin, K. H., Tseng, Y. W, Huang, K. Y., Wu, J. C., Cheng, W. H.
ACM International Conference on Multimedia, Oct. 2025 — Top-tier in multimedia

Predictor selection method for the construction of SVM-based typhoon rainfall forecasting models using a non-dominated sorting genetic algorithm
Yang, T. C., Yu, P. S., ***Lin, K. H.***, Kuo, C. M., Tseng, H. W.
Meteorological applications, Oct. 2018 — SCI-indexed journal

An Acceptable Framework to Predict the Flood Stage Under Climate Change Scenarios - A Case Study in Taipei Basin
Wu, P. Y., ***Lin, K. H.***
Asia Oceania Geosciences Society Annual Meeting, Jul. 2017 — Poster, top-tier in hydraulic engineering

A Comparison of Hourly Typhoon Rainfall Forecasting Models Based on Support Vector Machines and Random Forests with Different Predictor Sets
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
EGU General Assembly, Apr. 2016 — Oral, top-tier in hydraulic engineering

A Comparison of Random Forests and Support Vector Machine in River Stage Forecasting
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
Asia Oceania Geosciences Society Annual Meeting, Jul. 2015 — Oral, top-tier in hydraulic engineering

The Application of Support Vector Machine and Random Forest on Precipitation Forecasting
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
Conference on Computer Applications in Civil and Hydraulic Engineering, Jul. 2015 — Best Student Paper Award

Projects

Capybara: Python Toolkit for Computer Vision Task

- Developed an image processing and deep learning toolkit with modules for vision tasks, structured data handling, ONNX inference, and test coverage.

Chameleon: Python Toolkit for Developing AI Models

- Designed a modular DL framework with reusable components and training utilities for rapid prototyping.

DocClassifier: Document Image Classification System

- Built a metric learning–based classification system enhanced with ImageNet-1K and CLIP embeddings; achieved 90%+ accuracy with high inference speed and scalability.

FaceDetection: Efficient Face Detection Training Module

- Built on SCRFD with custom enhancements, the face-detection-XL model achieved SOTA on WIDERFace with mAPs of 0.965 (Easy), 0.951 (Medium), and 0.845 (Hard), offering strong efficiency.

TWLLM-Tutor: Revolutionizing Taiwanese Secondary Education with Large Language Model

- Developed an AI-based education system using a customized GSAT dataset and LLM tuning methods to support learning in underserved regions.