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 design and 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 globally on the Visa-Border dataset; Top 1 in Taiwan
- 2023 – FIME Biometric ISO Standards Verification: Achieved ISO/IEC 30107-3 compliance; First in Taiwan
- 2023 – AI Taiwan Future Commerce – Taiwan AI Award
- 2023 – Presidential Hackathon in Taiwan: Placed Top 20 out of 166 national teams
- 2023 – CVPR 4th Face Anti-Spoofing Competition: Ranked 16/66 globally; Top 1 in Taiwan
- 2021 – ICCV Masked Face Recognition Challenge & Workshop: Ranked 5/160 globally; Top 1 in Taiwan
- 2021 – Cathay Financial Holdings Co., Ltd. – eKYC Algorithm PoC Top 1 – 1/5
- 2021 Standard Chartered – eKYC PoC Top 1 – 1/4
- 2020 – Taiwan RegTech Challenge: Champion in the eKYC Group
- 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:** Implicit Pattern Recognition, Anomaly Detection, Domain Generalization, VLMs, MLLMs.
- **Adivisor:** Wen-Huang Cheng

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 (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

Technologies

Languages: Python, C++, C

Technologies: Computer Vision, Artificial Intelligence, Software Development, Team Management.

Publications

InstructFLIP: Exploring Unified Vision-Language Model for Face Anti-spoofing Oct. 2025
Lin, K. H., Tseng, Y. W, Huang, K. Y., Wu, J. C., Cheng, W. H.
2025 ACM Multimedia. (rank#1 in multimedia)

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

A Comparison of Hourly Typhoon Rainfall Forecasting Models Based on Support Vector Machines and Random Forests with Different Predictor Sets. Apr. 2016
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
2016 EGU General Assembly. (rank#1 in hydraulic engineering, oral)

A Comparison of Random Forests and Support Vector Machine in River Stage Forecasting Jul. 2015
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
2015 AOGS 12th Annual Meeting. (rank#3 in hydraulic engineering, oral)

The application of support vector machine and random forest on precipitation forecasting Jul. 2015
Lin, K. H., Tseng, H. W., Kuo, C. M., Yang, T. C., Yu, P. S.
2015 CCACHE. (oral, best student paper award)

Projects

Python toolkit for computer vision task Capybara

- This project is an image processing and deep learning toolkit comprising modules for computer vision (image/video processing), structured data handling (e.g., BoundingBox, Polygon), ONNX model inference, utility functions, and corresponding test code for functionality verification.
- Tools Used: Python

Python toolkit for developing AI models Chameleon

- This project offers a lightweight development toolkit featuring modular components and helpful utilities for training PyTorch-based models.
- Tools Used: Python

Document image classification system DocClassifier

- Provides a document image classification system based on Metric Learning, designed to address the limitations of traditional classifiers in handling diverse and ambiguous document types. Utilizing PartialFC, CosFace, and ArcFace, and enhanced with ImageNet-1K and CLIP, it achieves over 90% accuracy with fast inference, ONNX compatibility, and high scalability for real-world deployment.
- Tools Used: Python

Face detection FaceDetection

- Built upon SCRFD with innovative enhancements, the face detection model face-detection-XL achieved SOTA performance on the WIDERFace evaluation with competitive computational efficiency, recording mAP scores of 0.965 (Easy), 0.951 (Medium), and 0.845 (Hard).
- Tools Used: Python