Curriculum Vitae

Lo Pang-Yun Ting

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EDUCATION

Sep. 2020 – Jul. 2025 (GPA: 4.3 / 4.3)	**Ph.D. of Computer Science and Information Engineering, National Cheng Kung University, Taiwan** ◆ Work on research into RL-assist RAG for LLMs. ◆ Collaborate with NXP Semiconductor to research on IC defect type detection and IC task assignment. **(accepted by IJCAI 2025)** ◆ Collaborate NCKU hospital on wearable device-based detection of patient deterioration. **(accepted by IJCAI 2025)** ◆ Collaborate with Tokyo Electric Power Company, Azbil Corporation to conduct the research project of water leakage and electricity anomaly detection. **(published in ACM TIST 2024)** ◆ Collaborate with NextDrive to research on EV charging control. **(published in PAKDD 2022, ACM TIST 2024)**
Aug. 2023 – Jan. 2025	**Visiting Scholar of Computer Science and Engineering, Arizona State University, US** ◆ Work in Prof. Huan Liu's laboratory and research on early detecting clinical deterioration and on EV charging control.
Oct. 2019-Jul. 2020	**Exchange Student of Graduate School of Information Sciences, Tohoku University, Japan** ◆ Work in Prof. Nei Kato's laboratory and research on the telecommunications network. **(published in IEEE VTC 2020)**
Sep. 2017-Jun. 2019 (GPA: 4.3 / 4.3)	**Master of Computer Science and Information Engineering, National Cheng Kung University, Taiwan** ◆ Collaborate with Taiwan Junyi Academy to analyze activity logs in E-learning platforms to assist students' studies and careers. **(published in IEEE ICDM 2020)**
Sep. 2013-Jun. 2017 (GPA: 3.81 / 4.3)	**Bachelor of Computer Science and Information Engineering, National Cheng Kung University, Taiwan**

EXPERIENCE

Visiting Scholar   **Arizona State University, US**   Aug. 2023 – Jan. 2025
◆ Work in Prof. Huan Liu's lab and research on early detecting clinical deterioration and on EV charging control.

Data Analyst   **NightingaleAI Company**   Sep.2020-Feb.2022
◆ Design various detection and behavior control algorithms for energy management.
◆ Analyze testing logs of Integrated Circuits and develop algorithms for automatic defect detection.
◆ Analyze patients' vital sign data for status monitoring, disease detection and missing data imputation.

Lecturer   **Information Technology Curriculum and Instruction Center**   Sep.2020-Feb.2022
◆ Give several lessons on big data analysis, database, and data mining for high school teachers

Teaching Assistant   **National Cheng Kung University, Data Mining Course**   Sep.2020-Feb.2021
◆ Give lectures on foundations of deep learning.

Exchange Student   **Tohoku University, Japan**   Oct. 2019-Jul. 2020
◆ Work in Prof. Nei Kato's laboratory and research on the telecommunications network.

Research Assistant   **National Cheng Kung University**   Sep.2017-Sep.2018
◆ Work with Prof. Cheng-Te Li on the research problem of the team formation in social networks.

RESEARCH AREA AND RESULTS

Research Area

- Data mining, artificial intelligence
- knowledge graph embedding, reinforcement learning, time series analysis, social network analysis, recommendation system)

Recent Research Results

- **IJCAI 2025**, Early Detection of Patient Deterioration from Real-Time Wearable Monitoring System
  - We develop a novel knowledge graph embedding model using only patients' heart rate data from wearable devices. <u>Achieve **0.6 accuracy** with **0.92 recall**</u> while monitoring **only 30% of each patient's time series**, enabling early detection.

- **IJCAI 2025**, DeCo: Defect-Aware Modeling with Contrasting Matching for Optimizing Task Assignment in Online IC Testing
  - We design a graph embedding model for IC testing logs, capturing both global and local structure, and <u>achieve **80-95% success rate** with the consideration of the workload.</u>

- **ACM TIST 2024**, Online Spatial-Temporal EV Charging Scheduling with Incentive Promotion
  - We build a reinforcement learning model with a novel Q-value update mechanism, allowing the recommendation of optimal charging arrangements <u>in large action space and **reducing electricity cost by 4.6%.**</u>

AWARDS / SCHOLARSHIP

- Honorary member of the Phi Tau Phi Scholastic Honor Society of Taiwan (2025)
- Graduate Student Study Abroad Program (GSSAP) fully funded scholarship (2023)
- Honorary member of the Phi Tau Phi Scholastic Honor Society of Taiwan (2020)

PUBLICATION LIST

International Journal

- <u>**Lo Pang-Yun Ting**</u>, You-Cheng Guo, Chi-Chun Lin, Shih-Hsun Lin and Kun-Ta Chuang (2025). "MAC-DP: multi-agent control for dynamic placement of electric vehicle charging stations". *International Journal of Data Science and Analytics, **JDSA 2025**.* <u>(Impact Factor 2023: 3.4)</u>
- <u>**Lo Pang-Yun Ting**</u>, Huan-Yang Wang, Jhe-Yun Jhang and Kun-Ta Chuang (2024). Online Spatial-Temporal EV Charging Scheduling with Incentive Promotion. *ACM Transactions on Intelligent Systems and Technology, **ACM TIST 2024**.* <u>(Impact Factor 2023: 7.2)</u>
- <u>**Lo Pang-Yun Ting**</u>, Rong Chao, Chai-Shi Chang and Kun-Ta Chuang. (2024). An Explore–Exploit Workload-Bounded Strategy for Rare Event Detection in Massive Energy Sensor Time Series. *ACM Transactions on Intelligent Systems and Technology, **ACM TIST 2024**.* <u>(Impact Factor 2023: 7.2)</u>
- <u>**Lo Pang-Yun Ting**</u>, Shan-Yun Teng, Szu-Chan Wu and Kun-Ta Chuang. (2022). Interactive planning of revisiting-free itinerary for signed-for delivery. *International Journal of Data Science and Analytics, **JDSA 2022**.* <u>(Impact Factor 2023: 3.4)</u>
- Shan-Yun Teng, <u>**Lo Pang-Yun Ting**</u>, Mi-Yen Yeh and Kun-Ta Chuang (2019). Worship prediction: identify followers in celebrity-dived networks. ***World Wide Web, 2019.*** <u>(Impact Factor 2023: 2.7)</u>

International Conference

- **Lo Pang-Yun Ting**, Yu-Hao Chiang, Yi-Tung Tsai, Hsu-Chao Lai, Kun-Ta Chuang (2025). DeCo: Defect-Aware Modeling with Contrasting Matching for Optimizing Task Assignment in Online IC Testing. *International Joint Conference on Artificial Intelligence, IJCAI 2025 (just accepted).* (acceptance rate 18%)

- **Lo Pang-Yun Ting**, Hong-Pei Chen, An-Shan Liu, Chun-Yin Yeh, Po-Lin Chen, Kun-Ta Chuang (2025). Early Detection of Patient Deterioration from Real-Time Wearable Monitoring System. *International Joint Conference on Artificial Intelligence , IJCAI 2025 (just accepted).* (acceptance rate 18%)

- **Lo Pang-Yun Ting**, Hua-Cheng Cheng, Yu-Hua Zeng, Kun-Ta Chuang (2025). Hypergraph-Enhanced Kernel Initialization for Convolutional LSTM Networks: Insights from Asset Correlation Forecasting. *PAKDD 2025 (just accepted).* (full paper, acceptance rate 134/696=19%)

- Hsu-Chao Lai, Po-Hsiang Fang, Yi-Ting Wu, **Lo Pang-Yun Ting**, Kun-Ta Chuang (2024). A Confidence-Based Power-Efficient Framework for Sleep Stage Classification on Consumer Wearables. *IEEE BigData 2024.* (regular paper, acceptance rate 18.8%)

- **Lo Pang-Yun Ting**, Yu-Hao Chiang, Yu-Hsiang Chang, Michihiro Konagai and Kun-Ta Chuang. (2025). Optimized Battery Controlling for Smart Homes with Dynamic Insensitive-Zone Adjustment. *IEEE GCCE 2024.*

- Yu-Hsiang Chang, **Lo Pang-Yun Ting**, Wei-Cheng Yin, Ko-Wei Su and Kun-Ta Chuang (2024). Adaptive Knowledge Sharing in Multi-Task Learning: Insights from Electricity Data Analysis. *PAKDD workshop 2024.*

- **Lo Pang-Yun Ting**, Chi-Chun Lin, Shih-Hsun Lin, Yu-Lin Chu and Kun-Ta Chuang (2024). Multi-agent Reinforcement Learning for Online Placement of Mobile EV Charging Stations. *PAKDD 2024.* (oral presentation, acceptance rate 19%)

- Rong Chao, **Lo Pang-Yun Ting** and Kun-Ta Chuang (2022). Online Water Usage Monitoring under Anomalous Interference in Residential Households. *TAAI 2022.*

- **Lo Pang-Yun Ting**, Po-Hui Wu, Hsiu-Ying Chung and Kun-Ta Chuang (2022). An incentive dispatch algorithm for utilization-perfect EV charging management. *PAKDD 2022.* (acceptance rate=19.3%, out of 627 submissions)

- **Lo Pang-Yun Ting**, Po-Hui Wu, Jhe-Yun Jhang, Kai-Jun Yang, Yen-Ju Chen and Kun-Ta Chuang. (2021). Boosting Latent Inference of Resident Preference from Electricity Usage-A Demonstration on Online Advertisement Strategies. Big Data Analytics and Knowledge Discovery, *DaWak 2021.*

- **Lo Pang-Yun Ting**, Tiago Koketsu Rodrigues, Nei Kato and Kun-Ta Chuang, (2020). Prediction of network traffic load on high variability data based on distance correlation. IEEE Vehicular Technology Conference, *IEEE VTC Fall 2020.*

- **Lo Pang-Yun Ting**, Shan-Yun Teng, Kun-Ta Chuang and Ee-Peng Lim. (2020). Learning personal conscientiousness from footprints in e-learning systems. IEEE International Conference on Data Mining, *IEEE ICDM 2020.* (triple-blind review, short paper, acceptance rate=19.7% out of 930 submissions)

- **Lo Pang-Yun Ting**, Shan-Yun Teng, Suhang Wang, Kun-Ta Chuang and Huan Liu. (2020). Learning latent perception graphs for personalized unknowns recommendation. IEEE International Conference on Cognitive Machine Intelligence, *IEEE CogMI 2020.*

- Shan-Yun Teng, Jundong Li, **Lo Pang-Yun Ting**, Kun-Ta Chuang and Huan Liu (2018). Interactive unknowns recommendation in e-learning systems. IEEE International Conference on Data Mining, *IEEE ICDM 2018.* (triple-blind review, full paper, acceptance rate=8.86% out of 948 submissions)

- **Lo Pang-Yun Ting**, Cheng-Te Li and Kun-Ta Chuang. (2018). Predictive team formation analysis via feature representation learning on social networks. *PAKDD 2018.* (blind review, acceptance ratio 105/590=17%)