Kai-Jie Lin

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Education

National Yang Ming Chiao Tung University *Hsinchu, Taiwan*

Senior year of B.S. in Computer Science *Sep. 2021 - Now*

- Overall GPA: 3.83/4.0
- Relevant Courses: Algorithm, Graph Theory, Operating System, System Administration, Machine Learning, Deep Learning

Publications

BOFormer: A Generalized Deep Q-Learning Framework for Multi-Objective Bayesian Optimization *ICML AutoRL Workshop, 2024 (Spotlight)*

Yu-Heng Hung*, **Kai-Jie Lin***, Chien-Yi Wang, Ping-Chun Hsieh (* denotes equal contribution)

- Multi-Objective Bayesian optimization (MOBO) offers an efficient pipeline for optimizing black-box functions.
- We present a generalized deep Q-learning framework and propose *BOFormer*, which substantiates this framework for MOBO via sequence modeling.

Experience

NVIDIA - NYCU Advanced Research Project *Hsinchu*

2023 Summer Research Assistantship *Jul. 2023 - Sep. 2023*

- Research Topic: Reinforcement Learning for Bayesian Optimization

Reinforcement Learning course *Hsinchu*

Teach Assistant *Feb. 2024 - Jun. 2024*

- Reinforcement Learning is a master degree course taught by Prof. Ping-Chun Hsieh.
- Grading math proof homework, algorithm implementation and helping students with their questions about theory of RL.

Honors & Awards

Nov. 2022 **Bronze Medal**, 2022 ICPC Asia Taoyaun Regional Programming Contest *Taoyuan, Taiwan*

Oct. 2022 **Bronze Medal**, 2023 ICPC Asia Taoyaun Regional Programming Contest *Taoyuan, Taiwan*

Oct. 2023 **Bronze Medal**, 2023 Meichu Hackathon Google Group - Android Accessibility *Hsinchu, Taiwan*

Projects

Multi-Objective Denoising Diffusion Policy Optimization *Hsinchu, Taiwan*

Deep Learning Course Project *Jun. 2024*

- Key Words: Python, Pytorch, Diffusion Models, RLHF
- Aligning diffusion models with multi-objective reinforcement learning.
- Project Link: https://github.com/KJLdefeated/MODDPO

Apply Trajectory Transformer for Quatitative Trading *Hsinchu, Taiwan*

Introduction to Artificial Intelligence Course Project *May. 2023*

- Key Words: Python, Pytorch, Transformer, RL, Stock Trading
- Implementing some algorithms such as DQN, DDQN, Policy Gradient and Trajectory Transformer for stock trading.
- Project Link: https://github.com/KJLdefeated/Trajectory-Transformer-for-Quatitative-Trading

Multispeaker Transcription *Hsinchu, Taiwan*

Meichu Hackathon Android Accessibility project *Oct. 2023*

- Developing Tool: Python, Pytorch, Kotlin, Java, Android Studio
- An Android app that identify the user who is speaking. Transcript the audio and display in the app.
- Deploy ML models to Android app.

Certificates

TOEFL IBT Total: 99 / Reading: 27 / Listening: 26 / Speaking: 22 / Writing: 24