Wei-Yu Chen

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Education

National Taiwan University (NTU)
B.S. in Engineering (Department of Electrical Engineering)
Double Major: B.A. in Economics (Department of Economics)

Taipei, Taiwan
Sep 2020 - Jun 2024

- GPA: 4.21/4.3
- Rank: 8 out of 202

National Tainan First Senior High School
High School Diploma

Tainan, Taiwan
Sep 2017 - Jun 2020

- Program for students gifted in science
- Top 2% of the school

Research Experiences

Institute of Information Science, Academia Sinica
MuZero Decoder
Undergraduate Research Assistant/Intern

Taipei, Taiwan
Jul 2023 - Aug 2024

- Incorporate a decoder network into MuZero to improve the interpretability of the model.
- Evaluate the unrolling performance and the planning performance of MuZero with the decoder.

NTU Robot Learning Lab, National Taiwan University
Skill Interpolation with Language Guidance
Undergraduate Research Assistant

Taipei, Taiwan
Sep 2022 - May 2024

- Obtain relations among a set of predefined MuJoCo skills via large language models (LLMs) and semantic embeddings for the training of a new skill.
- Accelerate the training of a new skill through its relation to the predefined skills.

Special Project with Prof. Jian-Jiun Ding
Japanese Lip Reading
Undergraduate Research Assistant

Taipei, Taiwan
Feb 2024 - May 2024

- Collect image data from Youtube and train neural networks for Japanese lip reading.

Hybrid Robotics, University of California, Berkeley
Large Language Model for the Emotional Robot
Summer Research Intern

California, USA (Remote)
Jun 2023 - Sep 2023

- Given a scenario, generate emotional and meaningful scripts of the Unitree A1 quadruped robot through self-adjustment performed by two ChatGPT API instances.
- Predefine a set of quadruped robot skills with videos constructed by Blender and correspond them to the scripts.

Electrical Engineering Lab (topics on Communication System)
Term Project: Quantum Transfer Learning
Course Participant

Taipei, Taiwan
Nov 2022 - Dec 2022

- Append classical layers and quantum layers to classical pre-trained models and reveal the limitation of hybrid classical-quantum networks after analyzing their performances.

Publications

Hung Guei, Yan-Ru Ju*, **Wei-Yu Chen***, and Ti-Rong Wu. Interpreting the Learned Model in MuZero Planning. *The 29th International Conference on Technologies and Applications of Artificial Intelligence (TAAI 2024)*.

Awards

The Runner-Up Paper Award   *Hsinchu, Taiwan*
2024 Conference on Technologies and Applications of Artificial   *Dec 2024*
Intelligence (TAAI 2024)
- The award for the paper: Interpreting the Learned Model in MuZero Planning.

AUO Gold Sponsor Prize   *Taipei, Taiwan*
2023 MakeNTU—Eureka   *May 2023*
- Build a proof-of-concept smart car system incorporated innovative functionalities.

Skills

Languages	English, Mandarin (Chinese), Hokkien, Japanese.
Programming	Python, C++, Bash/Shell, MATLAB.
Math	Linear Algebra, Discrete Mathematics, Probability.
Others	Machine Learning, Reinforcement Learning, Git, Data Structures, Algorithms.

General Examinations

Graduate Record Examination (GRE) Verbal 167/170, Quantitative 170/170, AWA 3.5/6.0
Test of English as a Foreign Language (TOEFL) R 30/30, L 28/30, S 23/30, W 27/30

Extracurricular Activities

Hometown Voluntary Service Education Camp   *Jan 2021*
- Organize entertaining activities for elementary school students.

Remote Area Voluntary Service Education Camp   *Aug 2017, Aug 2018*
- Design interesting classes to teach elementary school students advanced concepts.

Links

Personal Website: https://jasperora.github.io/

Github: https://github.com/Jasperora