

Yu-Hsuan Li

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🔗 Yu-Hsuan-1220

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EDUCATION

•National Yang Ming Chiao Tung University

Bachelor of Science in Computer Science

July, 2023 - July, 2027 (expected)

GPA: 4.28/4.3 (Rank 2/197)

•Language

English (TOEIC 860), Chinese (Native)

EXPERIENCE

•TSMC AI4BI Intern

Sep, 2025 - present

Engineered an automated data pipeline using Python (yfinance) and Cron jobs to maintain and update stock market data in the database, ensuring data availability for downstream analysis.

Built a scalable data platform with FastAPI and AG Grid, optimizing the processing of large-scale UN com-trade datasets for enhanced user interactivity. Improved data accessibility by implementing flexible filtering, aggregation and dynamic visualization

•Research Assistant: Computational Photography Laboratory, NYCU

Sep, 2025 - present

Advised by Prof. Yu-Lun Liu

PUBLICATION

• YoCausal: How Far is Video Generation from World Model? A Causality Perspective

March, 2026

You-Zhe Xie*, Yu-Hsuan Li*, Jie-Ying Lee, Kaipeng Zhang, Yu-Lun Liu, Zhixiang Wang (* denotes equal contributions) (Under submission to ECCV 2026)

Proposed YoCausal, a evaluation protocol for Video Diffusion Models using the Violation of Expectation paradigm. Developed a two-level benchmark: Level 1 (RSI) for quantifying temporal perception via denoising loss, and Level 2 (CCI) leveraging VLMs to disentangle causal reasoning from temporal bias. Evaluated 13 SOTA VDMs, revealing critical gaps between temporal perception and genuine causal cognition.

PROJECTS

•Guitar tutor for blind (MC Hackathon Google Team 2nd Place) 🎸

Oct, 2025

A mobile app designed to teach blind people to learn the guitar from scratch.

- Built the backend web architecture using FastAPI
- Connected to the Gemini API to interact with users and handle various functionalities
- Integrated an open-source speech recognition model to distinguish pitch

•Deep Learning Project 🎓

July-Aug, 2025

Seven projects from graduate-level courses at NYCU

- Techniques include: CNN, UNet, ResNet, VAE, Transformer, MaskGIT, Diffusion model
- Reinforcement learning: Training DQN, PPO, A2C on several tasks

•Paper Searching Bot with LLM 📄

April, 2024

A discord bot that allows users to acquire papers easily

- Using Selenium for the data (paper) collecting
- Built paper searching discord bot with RAG on LLM. Optimized result by prompt engineering. Achieved 96.6% content relevance

•League of legends Game Guide 🎮

Dec, 2024

A web server that allows users to retrieve League of Legends data and match analysis.

- Connects a Node.js backend to a MySQL database
- Integrates with an HTML, CSS, and JavaScript frontend
- Implemented APIs for sending requests and handling responses

TECHNICAL SKILLS AND INTERESTS

Languages: C/C++, Python, Javascript, HTML, SQL, C#

Tools: Visual studio code, Pytorch, FastAPI, Node.js, MySQL, GitHub, Unity

Relevant Coursework: Deep Learning, Deep Learning Lab, Image processing, Artificial Intelligence, Data Structures & Algorithms, System Administration, Database Systems, Computer Networks

Areas of Interest: Computer vision, Deep learning, Machine learning, Web server

Soft Skills: Problem Solving, Self-learning, Adaptability, Collaboration

AWARD

- **Academic Achievements Award in Fall 2023, 2024, 2025 and Spring 2025 Semesters:** Top 5 % in the class
- **Core Fundamental Course Award of Computer Organization:** Second place out of 79 students.
- **Core Fundamental Course Award of Data Structures & Object-oriented Programming:** First place out of 90.
- **Core Fundamental Course Award of Introduction to Operating Systems:** Second place out of 195.
- **University Calculus Award** Top 20 among all 1162 students enrolled Calculus Course