Oscar (Sheng-Wei) Li

EDUCATION

National Taiwan University

Sep 2022 - Oct 2024

MS in Computer Science, Graduate Institute of Networking and Multimedia

- ECCV 2024 Publication on Multimodal learning and Zero-Shot Learning.
- Member of the Phi Tau Phi Scholastic Honor Society, inducted by NTU EECS for academic excellence.
- Outstanding Teaching Assistant Award, Spring 2023, for the EMI course Artificial Intelligence.

National Yang Ming Chiao Tung University

Sep 2018 - Jun 2022

BS in Computer Science, Department of Computer Science

- **GPA:** 4.11/4.3; **Top** 4% **of Class**; Dean's List for three semesters.
- Gold Award in the Intelligent Living Space Design Competition, 2022 (Special Project: ML HVAC Control).
- Yin Zhi Tong Memorial Scholarship recipient for exceptional practical impact of research projects.

WORK EXPERIENCE

Google Jun 2024 – Sep 2024

Image Processing Machine Learning Intern

- Accelerated image generation pipeline by 20x using residual-based diffusion models.
- Developed a Gen-AI image editor that edits images from user instructions with diffusion models.
- Quantified the trade-off between image quality and computational cost through extensive experiments.

Intel Jul 2023 – May 2024

Software Engineering Intern

- Achieved a 20% faster boot time and increased test coverage to 90% by rewriting System Management BIOS using Test-Driven Development (TDD).
- Developed an **LLM copilot for unit test generation**, resulting in a 20% increase in test coverage.

National Applied Research Laboratories

Feb 2023 – Aug 2023

LLM Engineer, TAIDE LLM (huggingface.co/taide)

- Led instruction finetuning efforts for TAIDE, a LLM addressing the challenges of low-resource Traditional Chinese and Taiwan cultural nuances.
- Optimized pre-training corpus, achieving 20% computational savings and 8% performance boost.

Tomofun – World's Leading AI Pet Tech Company

Mar 2023 – Jun 2023

AI Engineer Intern

- Enhanced vision-language model with 90% reduced data needs and 10% better real-world performance.
- Built LLM pet report generator capable of processing 100K+ tokens, resulting in 8/10 user helpfulness rating.

PUBLICATIONS

Li SW, Wei ZX, Chen WJ, Yu YH, Yang CY, Hsu JY. SA-DVAE: Improving Zero-Shot Skeleton-Based Action Recognition by Disentangled Variational Autoencoders. **European Conference on Computer Vision; 2024**.

SKILLS

- Machine Learning: NLP; CV; PyTorch; TensorFlow; Parallel computing; Hardware-aware ML optimization
- Programming: Python; C/C++; SQL; MongoDB; GoogleTest; JavaScript; Docker; AWS; Slurm
- Software Engineering: Object-oriented programming; Test-Driven Development; Operating System