

Yu-Ling Liao

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Education

National Taiwan University, M.S. in Graduate Institute of Networking and Multimedia Feb 2026 – Expected Jun 2027

- Graduate Researcher, NTU NLP Lab (Advisor: Prof. Hsin-Hsi Chen)
- Research Interests: Bias, Robustness, Safety, and Representation Analysis in Multilingual and Multimodal Large Language Models

National Taiwan University, B.S. in Mathematics Sept 2021 – Jan 2026

Publications

Y. L. Liao, T. C. Chiu, Z. Y. Chen, C. L. Tsai, S. Y. Lo. *AEGIS: Audio Endogenous Guarding via Internal Signals Against Large Audio-Language Model Jailbreaks*. [arXiv] Under review at ICASSP 2027 arXiv Preprint 2026

S.L. Wei, **Y. L. Liao**, H. H. Huang, H. H. Chen. *Do Multimodal LLMs Understand Order? Measuring the Fragility of Multimodal Reasoning under Input Order Perturbations*. [Paper] LREC 2026

S.L. Wei*, **Y. L. Liao***, Y. H. Chang, H. H. Huang, H. H. Chen. *Bias in the Ear of the Listener: Assessing Sensitivity in Audio Language Models Across Linguistic, Demographic, and Positional Variations*. [Paper] *Equal contribution Findings of EACL 2026

Research Experience

NTU NLP Lab, Researcher June 2025 – Present

- Conduct research on multilingual and multimodal LLMs spanning representation analysis, speech evaluation, model robustness, and audio safety.
- Build evaluation and analysis pipelines for large-scale experiments across languages, models, and speech conditions.

Institute of Mathematics, Academia Sinica, Summer Intern June 2025 – July 2025

- Studied nonstationary time-series analysis for biomedical AI.

Selected Projects

SNC: Lightweight Stabilizers for Safe Reinforcement Learning [GitHub] Spring 2026

- Studied lightweight stabilizers for PPO-Lag to improve multiplier stability in safe RL.

Audiooo: Customizable Binaural Soundscapes [GitHub] Spring 2025

- Built an interactive audio prototype with microphone input and Arduino, covering signal acquisition, hardware debugging, and web integration.

Game Development Project [Game] Fall 2024

- Designed and implemented a fast-paced platformer in Unity with iterative gameplay and level design.

Donor Behavior Prediction Using Machine Learning [GitHub] Spring 2024

- Built and compared classical ML models for donor behavior prediction using feature-based data analysis.

Technical Skills

Programming: Python, C/C++, MATLAB, OpenSCAD

Software & Tools: Git, Linux, Docker, Arduino, Unity

Languages: Chinese (native), English (TOEIC 890), Korean (TOPIK I)