

Guan-Ting Lin

☎ (+886) 905286016 | ✉ daniel094144@gmail.com | 🌐 <https://danielin94144.github.io/> | 📺 DanielLin94144 | 📁 guan-ting-lin

Research Interests

- **Full-duplex** spoken dialogue model [ASRU'25].
- **Speech LLM** with **reinforcement learning** and **post-training** [ACL'25].
- Multi-modal large language models to capture **speech speaking styles** in **spoken dialogue** [ACL'24, EMNLP'24].
- End-to-end **spoken language understanding** and **spoken question answering** [Interspeech'22'23, ICASSP'24].
- **Test-time Adaptation** on end-to-end **automatic speech recognition** [Interspeech'22, EMNLP'24, ASRU'25].

Education

National Taiwan University (NTU)

PH.D. IN COMMUNICATION ENGINEERING, EECS COLLEGE

Taipei, Taiwan

Sep. 2021 – Dec. 2025 (expected)

- Speech Processing and Machine Learning Laboratory. Advised by Prof. **Hung-yi Lee**.
- Transferred from M.S. program in Feb. 2023.

National Tsing Hua University (NTHU)

B.S. BIOMEDICAL ENGINEERING & ADVANCED AI PROGRAM

Hsinchu, Taiwan

Sep. 2017 – Jun. 2021

- Ranking: **1/ 48**, 3 Deans's List (top 5% students of the department), Phi Tau Phi Award (top 1 student).

Research Experiences

Meta

Menlo Park, United States

Research Scientist Intern / Host: Dr. Naoyuki Kanda

Aug. 2025 - Nov. 2025

- **Meta Superintelligence Lab (MSL)** Voice Modeling Team, working on improving **full-duplex speech LLM**.

Google DeepMind

New York, United States

Student Researcher / Host: Dr. Kartik Audhkhasi, Dr. Bhuvana Ramabhadran

Feb. 2025 - April. 2025

- Under **Gemini speech** team, improving Gemini under low-resource languages.
- The project has been filed as a **U.S. patent** application by Google.

Amazon AGI

Seattle, United States

Applied Scientist II Intern / Host: Dr. Prashanth Gurunath Shivakumar

June. 2024 - Sep. 2024

- Proposed **Align-SLM**, an end-to-end speech-to-speech model with RL [ACL'25].
- Achieves state-of-the-art performance and lays the foundational technique for the production Nova Sonic model.

Amazon Alexa AI (ASR LM team)

Seattle, United States

Applied Scientist II Intern / Host: Dr. Prashanth Gurunath Shivakumar, Dr. Andreas Stolcke

June. 2023 - Sep. 2023

- Proposed **ParalinGPT**, a paralinguistics-enhanced multi-modal large language model for spoken dialogue [ICASSP'24].

Amazon Alexa AI (Alexa Perceptual team)

Cambridge, United States

Applied Scientist I Intern / Host: Dr. Chieh-Chi Kao, Dr. Qingming Tang

July. 2022 - Oct. 2022

- Weight-sharing neural architecture search approach on acoustic event classification models [ICASSP'23].

Speech Processing and Machine Learning Lab @ NTU

Taipei, Taiwan

Graduate Researcher / Advisor: Prof. Hung-yi Lee

July. 2020 - Present

- Published **12 top-tier first/co-first conference papers**.
- Lead multiple projects with internal & external collaborators on end-to-end spoken language understanding, test-time adaptation for ASR, and full-duplex evaluation.

8th JASLT Summer Workshop

Baltimore, United States

Visiting Researcher, Advisor: Prof. Nigel Ward, Prof. Hung-yi Lee

July. 2022

- Self-supervised speech representation learning for prosody [Best Paper Award of SLT'22].

Selected Publications

Please see my [google scholar](#) for full publications. * indicates equal contribution.

1. **Guan-Ting Lin**, Jiachen Lian, Tingle Li, Qirui Wang, Gopala Anumanchipalli, Alexander H. Liu, Hung-yi Lee, “**Full-Duplex-Bench: A Benchmark to Evaluate Full-duplex Spoken Dialogue Models on Turn-taking Capabilities**” in *ASRU 2025*
2. **Guan-Ting Lin***, Wei-Ping Huang*, Hung-yi Lee, “**SUTA-LM: Bridging Test-Time Adaptation and Language Model Rescoring for Robust ASR**” in *ASRU 2025*
3. **Guan-Ting Lin**, Prashanth Gurunath Shivakumar, Aditya Gourav, Yile Gu, Ankur Gandhe, Hung-yi Lee, Ivan Bulyko, “**Align-SLM: Textless Spoken Language Models with Reinforcement Learning from AI Feedback**” in *ACL 2025*
4. **Guan-Ting Lin***, Wei-Ping Huang*, Hung-yi Lee, “**Continual Test-time Adaptation for End-to-end Speech Recognition on Noisy Speech**” in *EMNLP 2024*
5. **Guan-Ting Lin**, Hung-yi Lee, “**Can LLMs Understand the Implication of Emphasized Sentences in Dialogue?**” in *EMNLP 2024*
6. **Guan-Ting Lin**, Cheng-Han Chiang, Hung-yi Lee, “**Advancing Large Language Models to Capture Varied Speaking Styles and Respond Properly in Spoken Conversations**” in *ACL 2024*

7. **Guan-Ting Lin**, Prashanth Gurunath Shivakumar, Ankur Gandhe, Chao-Han Huck Yang, Yile Gu, Shalini Ghosh, Andreas Stolcke, Hung-yi Lee, Ivan Bulyko, “**Paralinguistics-Enhanced Large Language Modeling of Spoken Dialogue**” in *ICASSP 2024*
8. Chyi-Jiunn Lin, **Guan-Ting Lin**, Yung-Sung Chuang, Wei-Lun Wu, Shang-Wen Li, Abdelrahman Mohamed, Hung-yi Lee, Lin-shan Lee, “**SpeechDPR: End-to-End Spoken Passage Retrieval for Open-Domain Spoken Question Answering**” in *ICASSP 2024*
9. **Guan-Ting Lin***, Guan-Wei Wu*, Shang-Wen Li, Hung-yi Lee, “**Improving Textless Spoken Language Understanding with Discrete Units as Intermediate Target**” in *Interspeech 2023*
10. **Guan-Ting Lin**, Qingming Tang, Chieh-Chi Kao, Viktor Rozgic, Chao Wang, “**Weight-sharing Supernet for Searching Specialized Acoustic Event Classification Networks Across Device Constraints**” in *ICASSP 2023*
11. **Guan-Ting Lin***, Chi-Luen Feng*, Wei-Ping Huang, Yuan Tseng, Tzu-Han Lin, Chen-An Li, Hung-yi Lee, Nigel G. Ward, “**On the Utility of Self-supervised Models for Prosody-related Tasks**” in *SLT 2022 Best Paper Award (2 out of 363 accepted papers)*
12. **Guan-Ting Lin**, Yung-Sung Chuang, Ho-Lam Chung, Shu-wen Yang, Hsuan-Jui Chen, Shang-Wen Li, Abdelrahman Mohamed, Hung-yi Lee, Lin-shan Lee, “**DUAL: Textless Spoken Question Answering with Speech Discrete Unit Adaptive Learning**” in *Interspeech 2022*
13. **Guan-Ting Lin**, Shang-Wen Li, Hung-Yi Lee, “**Listen, Adapt, Better WER: Source-free Single-utterance Test-time Adaptation for Automatic Speech Recognition**” in *Interspeech 2022*
14. **Guan-Ting Lin***, Chan-Jan Hsu*, Da-Rong Liu, Hung-Yi Lee, Yu Tsao, “**Analyzing the Robustness of Unsupervised Speech Recognition**” in *ICASSP 2022*
15. Shu-wen Yang, Po-Han Chi, Yung-Sung Chuang, Cheng-I Jeff Lai, Kushal Lakhotia, Yist Y. Lin, Andy T. Liu, Jiatong Shi, Xuankai Chang, **Guan-Ting Lin**, Tzu-Hsien Huang, Wei-Cheng Tseng, Ko-tik Lee, Da-Rong Liu, Zili Huang, Shuyan Dong, Shang-Wen Li, Shinji Watanabe, Abdelrahman Mohamed, Hung-yi Lee, “**SUPERB: Speech processing Universal PERFORMANCE Benchmark**” in *Interspeech 2021*

Honors & Awards

AWARDS

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| 2024 | IEEE Signal Processing Society Travel Grant , Awarded with 500 USD for attending ICASSP 2024 | Seoul, Korea |
| 2023 | Best Paper Award , One of the two best papers in IEEE SLT 2022, awarded with 500 USD | Doha, Qatar |
| 2023 | NTU Elite Doctoral Scholarship , 4-year scholarship, only one student of each department. | Taiwan |
| 2023 | GICE Elite Doctoral Scholarship , The joint 4-year scholarship from Graduate Institute of Communication Engineering and NVIDIA | Taiwan |
| 2022 | ISCA Travel Grant , Awarded with 600 Euros for attending Interspeech 2022, only 60 students were selected. | Incheon, Korea |
| 2022 | Appier scholarship for international top AI conferences , Awarded with 25000 NTD for Interspeech 2022. | Taiwan |
| 2020 | The Zhu Shun Yi He Qin Scholarship , The highest honor for National Tsing Hua University student with about 3000 USD prize. | Taiwan |
| Jun. 2021 | Phi Tau Phi Award , Top 1 graduation student of the department. | Taiwan |
| 2018–9 | 3 Deans's List , Top 5% students of the department, (2018 Spring/2018 Fall/2019 Fall in NTHU). | Taiwan |
| Feb. 2021 | Excellent Achievement , 2020 AI CUP Competition on Medical Dialogue Decision: Deidentity Task, 15/531 (top 3%) with 300 USD prize | Taiwan |

ACADEMIC SERVICES

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| Sep. 2021- | Reviewers , ICLR'24'25, NeurIPS'24'25, ACL'24'25, EMNLP'24, NAACL'23'24'25, ICASSP'23'24, ISCSLP'22'23'24, |
| Present | COLING'25 |
| 2025 | Notable Reviewer , ICLR 2025 |

Teaching

Machine Learning Summer School 2021, Taipei

Head Teaching Assistant

Managed 31 virtual Machine Learning courses with worldwide lecturers, and a Facebook group for 1400 international participants.

2021 Fall - Linear Algebra

Teaching Assistant

Designed 1D and 2D Discrete cosine transform homework for JPEG compression.

2022 Spring - Machine Learning 2022 Spring

Teaching Assistant

Designed assignment for Black-box Adversarial Attack on CIFAR 10.

National Taiwan University

2021 summer

National Taiwan University

2021 Fall

National Taiwan University

2022 Spring