Guan-Ting **Lin**

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Summary

Guan-Ting received his Ph.D. at National Taiwan University (NTU), under the supervision of **Prof. Hung-yi Lee**. He focuses on building "human-like end-to-end speech language models" for real-time dialogue interaction. Research spans **full-duplex speech LLMs**, **reinforcement learning for speech LLMs**, **textless spoken language modeling**, **multimodal modeling of speaking styles**, and **test-time adaptation speech recognition**. He had research experience at Meta Superintelligence Lab, Google DeepMind, and Amazon. Authored **15+ first/co-first papers** at leading Speech & NLP venues (ACL, EMNLP, ICASSP, Interspeech, ASRU, SLT), with research cited 1600+ times on Google Scholar.

Research Experiences

Meta *Menlo Park, United States*
Research Scientist Intern / MENTOR: *Dr. Naoyuki Kanda* *Aug. 2025 - Nov. 2025*
- **Meta Superintelligence Lab (MSL)** Voice Modeling Team.
- Working on **production-level full-duplex speech language models** through improved supervised fine-tuning and reinforcement learning.

Google DeepMind *New York, United States*
Student Researcher / MENTOR: *Dr. Kartik Audhkhasi, Dr. Bhuvana Ramabhadran* *Feb. 2025 - April. 2025*
- Under **Gemini speech** team, working on in-context learning methods to expand Gemini to 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 / MENTOR: *Dr. Prashanth Gurunath Shivakumar* *June. 2024 - Sep. 2024*
- Proposed **Align-SLM**, an end-to-end speech-to-speech model with RL [ACL'25].
- Achieved state-of-the-art performance and provided the foundational technique for the production Nova Sonic model.

Amazon Alexa AI *Seattle, United States*
Applied Scientist II Intern / MENTOR: *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 *Cambridge, United States*
Applied Scientist I Intern / MENTOR: *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**.
- Led 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].

Education

National Taiwan University (NTU) *Taipei, Taiwan*
PH.D. IN COMMUNICATION ENGINEERING, EECS COLLEGE *Sep. 2021 – Dec. 2025*
- Speech Processing and Machine Learning Laboratory. Advised by Prof. **Hung-yi Lee**.
- Transferred from M.S. program in Feb. 2023.

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**, Shih-Yun Shan Kuan, Qirui Wang, Jiachen Lian, Tingle Li, Hung-yi Lee, "Full-Duplex-Bench v1.5: Evaluating Overlap Handling for Full-Duplex Speech Models" in *ICASSP 2026*
3. **Guan-Ting Lin***, Shih-Yun Shan Kuan*, Jiatong Shi, Kai-Wei Chang, Siddhant Arora, Shinji Watanabe, Hung-yi Lee, "Full-Duplex-Bench-v2: A Multi-Turn Evaluation Framework for Duplex Dialogue Systems with an Automated Examiner" in *arXiv 2025*
4. **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*
5. **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*

6. **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*

7. **Guan-Ting Lin**, Hung-yi Lee, "Can LLMs Understand the Implication of Emphasized Sentences in Dialogue?" in *EMNLP 2024*

8. **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*

9. **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*

10. **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*

11. **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*

12. **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)*

13. **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*

14. **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*

15. **Guan-Ting Lin***, Chan-Jan Hsu*, Da-Rong Liu, Hung-Yi Lee, Yu Tsao, "Analyzing the Robustness of Unsupervised Speech Recognition" in *ICASSP 2022*

16. 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

2023	**Best Paper Award**, **2 out of 363 accepted papers** in IEEE SLT 2022, awarded with 500 USD	*Doha, Qatar*
2024	**IEEE Signal Processing Society Travel Grant**, Awarded with 500 USD for attending ICASSP 2024	*Seoul, Korea*
2022	**ISCA Travel Grant**, Awarded with 600 Euros for attending Interspeech 2022, only 60 students were selected.	*Incheon, Korea*
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	**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*

Academic Services

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

Teaching

Machine Learning Summer School 2021, Taipei — *National Taiwan University*
Head Teaching Assistant — *2021 summer*
Managed 30+ virtual Machine Learning courses with worldwide academic professors and lecturers for 1400+ international participants.

Linear Algebra; Machine Learning — *National Taiwan University*
Teaching Assistant — *2021 - 2022*
Designed assignments about JPEG compression and adversarial attack.

Skills

Programming	Python, C, C++, Matlab, LaTeX, Git
Machine Learning	Pytorch, Tensorflow, Jax, PyTorch Lightning, Huggingface