Guan-Ting **Lin**

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Research Interests

Speech LLMs, Full-Duplex Interaction, Spoken Language Understanding & Generation, and Test-Time Adaptation for ASR.

Education

National Taiwan University (NTU)   *Taipei, Taiwan*
PH.D. IN COMMUNICATION ENGINEERING, EECS COLLEGE   *Sep. 2021 – Dec. 2025 (expected)*
- **GPA**: 4.24/4.3; Ranking: 15/158
- Speech Processing and Machine Learning Laboratory. Advised by Prof. Hung-yi Lee.
- Transferred from M.S. program in Feb. 2023.
- **Selected Courses**: Deep Learning for Human Language Processing, Machine Learning, Digital Speech Processing, Security and Privacy of Machine Learning, Deep Learning for Music Analysis and Generation.

National Tsing Hua University (NTHU)   *Hsinchu, Taiwan*
B.S. BIOMEDICAL ENGINEERING & ADVANCED AI PROGRAM   *Sep. 2017 – Jun. 2021*
- **GPA**: 4.08/4.3; Ranking: 1/ 48
- **Honors**: 3 Deans's List (top 5% students of the department), Phi Tau Phi Award (top 1 student), The Zhu Shun Yi He Qin Scholarship

Research Experience

Speech Processing and Machine Learning Lab @ NTU   *Taipei, Taiwan*
Undergraduate → Graduate Researcher / ADVISOR: *Prof. Hung-yi Lee*   *July. 2020 - Present*
- Full-duplex speech dialogue model [ASRU'25].
- Multi-modal large language models for speech speaking styles and spoken dialogue [ACL'24, EMNLP'24].
- Self-supervised representation learning for speech [Interspeech'21, SLT'22].
- 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 models [Interspeech'22, EMNLP'24 Findings, ASRU'25].

Meta   *Menlo Park, United States*
Research Scientist Intern / HOST: *Dr. Chunyang Wu*   *Aug. 2025 - Nov. 2025*
- Research Scientist Intern of GenAI speech team.

Google DeepMind   *New York, United States*
Student Researcher / HOST: *Dr. Kartik Audhkhasi, Dr. Bhuvana Ramabhadran*   *Feb. 2025 - April. 2025*
- Under Gemini speech team. Improving large multi-modal models for speech recognition.
- The project has been filed as a **U.S. patent** application by Google.

Amazon AGI-Speech   *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].

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 & Preprints

*Please see the google scholar for full publications. * indicates equal contribution.*

- 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", ***ASRU 2025***
- Guan-Ting Lin*, Wei-Ping Huang*, Hung-yi Lee, "SUTA-LM: Bridging Test-Time Adaptation and Language Model Rescoring for Robust ASR", ***ASRU 2025***
- 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", ***ACL 2025***
- Guan-Ting Lin*, Wei-Ping Huang*, Hung-yi Lee, "Continual Test-time Adaptation for End-to-end Speech Recognition on Noisy Speech", ***EMNLP 2024***

- Guan-Ting Lin, Hung-yi Lee, "Can LLMs Understand the Implication of Emphasized Sentences in Dialogue?", *EMNLP 2024 Findings*
- Guan-Ting Lin, Cheng-Han Chiang, Hung-yi Lee, "Advancing Large Language Models to Capture Varied Speaking Styles and Respond Properly in Spoken Conversations", *ACL 2024*
- 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", *ICASSP 2024*
- 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", *ICASSP 2024*
- Guan-Ting Lin*, Guan-Wei Wu*, Shang-Wen Li, Hung-yi Lee, "Improving Textless Spoken Language Understanding with Discrete Units as Intermediate Target", *Interspeech 2023*
- 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", *ICASSP 2023*
- 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", *SLT 2022 Best Paper Award (2 out of 363 accepted papers)*
- 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", *Interspeech 2022*
- Guan-Ting Lin, Shang-Wen Li, Hung-Yi Lee, "Listen, Adapt, Better WER: Source-free Single-utterance Test-time Adaptation for Automatic Speech Recognition", *Interspeech 2022*
- Guan-Ting Lin*, Chan-Jan Hsu*, Da-Rong Liu, Hung-Yi Lee, Yu Tsao, "Analyzing the Robustness of Unsupervised Speech Recognition", *ICASSP 2022*
- 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", *Interspeech 2021*

Honors & Awards

Awards

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*
2020	**Top 40**, From IP TO IPO program (FITI). Innovation and entrepreneurship competition with 1000 USD prize	*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 31 virtual Machine Learning courses with worldwide lecturers, and a Facebook group for 1400 international participants.

2021 Fall - Linear Algebra — *National Taiwan University*
Teaching Assistant — *2021 Fall*
Designed 1D and 2D Discrete cosine transform homework for JPEG compression.

2022 Spring - Machine Learning 2022 Spring — *National Taiwan University*
Teaching Assistant — *2022 Spring*
Designed assignment for Black-box Adversarial Attack on CIFAR 10.