# Qichao Wang

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### **EDUCATION**

Nanyang Technological University

Doctor of Philosophy of Artificial Intelligence

Singapore

August 2025 - Now

• Sun Yat-sen University

September 2022 - June 2025

Master of Computer Science and Engineering

Guangzhou, China

• Sun Yat-sen University

September 2018 - June 2022 Guangzhou, China

Bachelor of Intelligent Transportation, GPA: 3.9/4.0

## **EXPERIENCE**

Tencent AI Lab [ ]

March 2023 - July 2025

Shenzhen, China

Multi-modal LLM research intern

- Topic: LLM Safety; Speech Language Model;
- Participated in Hunyuan LLM red-teaming system development;
- Contributed to duplex speech language model training pipeline and optimization;
- Implemented algorithms for audio-based agent products.

# **PUBLICATIONS** (\* indicate equal contribution)

King, Liang Chen, Peilin Zhao.

- [C.1] NTPP: Generative Speech Language Modeling for Dual-Channel Spoken Dialogue via Next-Token-Pair Prediction. *ICML* 2025. 120+ *Github stars*,
   Qichao Wang\*, Ziqiao Meng\*, Wenqian Cui, Yifei Zhang, Pengcheng Wu, Bingzhe Wu, Zibin Zheng, Irwin
- [C.2] Parameter-Efficient Fine-Tuning with Discrete Fourier Transform. ICML 2024, Integrated into the official PEFT repository,
  Ziqi Gao\*, Qichao Wang\*, Aochuan Chen, Zijing Liu, Bingzhe Wu, Liang Chen, Jia Li.
- [C.3] Recent Advances in Speech Language Models: A Survey. EMNLP 2025, Wenqian Cui, Dianzhi Yu, Xiaoqi Jiao, Ziqiao Meng, Guangyan Zhang, Qichao Wang, Yiwen Guo, Irwin King.
- [J.1] Cooperative Decision-Making Strategies for Emergency Scenario in Mixed Traffic. IEEE Transaction on Intelligent Transportation Systems, 2023, Zhi Li, Qichao Wang, Junbo Wang.

### **PROJECTS**

· Seamless agent assistant for community elderly

October 2024 - May 2025

■ News link

Tools: [Audio Language Model, MCP server]

- Developed AI assistant algorithms for "Time Garden" community mutual assistance platform serving elderly residents;
- Implemented multi-dialect speech recognition and LLM reasoning for Cantonese, Sichuan dialect, and Mandarin;
- Serving ten thousand of elderly users in Shenzhen.

## **HONORS AND AWARDS**

• National scholarship 2020, 2021

Ministry of Education of China

• China Undergraduate Mathematical Contest in Modeling (CUMCM)

National First Prize, China Society for Industrial and Applied Mathematics(CSIAM)

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2020 [**(**)]

## **SKILLS**

- Programming Languages: Python, Rust.
- Distributed training of large models: Deepspeed, Accelerate.