Xiangming Gu, Ph.D. Candidate

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🌐 https://guxm2021.github.io
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Education

2021.8 – now 🔖 **Ph.D. Candidate, National University of Singapore** in School of Computing and Integrative Sciences and Engineering Programme.
Supervisor: A.P. Ye Wang, GPA: 4.80/5.0.

2017.8 – 2021.6 🔖 **B.E. & B.S. Degree, Tsinghua University** in Electronic Engineering and Finance.
Supervisor: A.P. Jiansheng Chen, GPA: 3.80/4.0.

2020.1 – 2020.6 🔖 **Exchange, National Univeristy of Singapore** in Electrical and Computer Engineering.
Supervisor: A.P. Cheng Xiang, GPA: 4.88/5.0

Employment

2023.3 – now 🔖 **Research Intern, Sea AI lab** Research on Generative Modeling.
Mentor: Dr. Tianyu Pang and Dr. Chao Du.

Research Publications

Conference Proceedings

1 **Gu, X.**, Zeng, W., & Wang, Y. (2023). Elucidate Gender Fairness in Singing Voice Transcription. In *ACM International Conference on Multimedia (**MM**)*, Ottawa, Canada.

2 **Gu, X.**, Ou, L., Ong, D., & Wang, Y. (2022). MM-ALT: A Multimodal Automatic Lyric Transcription System. In *ACM International Conference on Multimedia (**MM**)*, Lisbon, Portugal. (**Oral, Top Paper Award**).

3 Huang, H., **Gu, X.**, Wang, H., Xiao, C., Liu, H., & Wang, Y. (2022). Extrapolative Continuous-time Bayesian Neural Network For Fast Training-free Test-time Adaptation. In *Advances in Neural Information Processing systems (**NeurIPS**)*, New Orleans, United States.

4 Ou, L., **Gu, X.**, & Wang, Y. (2022). Transfer Learning of Wav2vec 2.0 for Automatic Lyric Transcription. In *International Society for Music Information Retrieval Conference (**ISMIR**)*, Bengaluru, India.

Journal Articles

1 Wei, W., Huang, H., **Gu, X.**, Wang, H., & Wang, Y. (2022). Unsupervised Mismatch Localization in Cross-Modal Sequential Data with Application to Mispronunciations Localization. *Transactions on Machine Learning Research (**TMLR**)*.

2 Xue, Y., Chen, J., **Gu, X.**, Ma, H., & Ma, H. (2022). Boosting Monocular 3D Human Pose Estimation with Part Aware Attention. *IEEE Transactions on Image Processing (**TIP**)*, 31, 4278–4291.

3 Zhang, B., Yang, P., **Gu, X.**, & Liao, H. (2021). Laser Endoscopic Manipulator Using Spring-Reinforced Multi-DoF Soft Actuator. *IEEE Robotics and Automation Letters (**RA-L**)*, 6(4), 7736–7743.

Technical Report

1   **Gu, X.**, Zeng, W., Zhang, J., Ou, L., & Wang, Y. (2023). *Deep Audio-Visual Singing Voice Transcription based on Self-Supervised Learning Models.*

2   **Gu, X.**, & Xiang, C. (2020). *Distilling a deep neural network into a Takagi-Sugeno-Kang fuzzy inference system.*

Skills

Languages	Strong reading, writing and speaking competencies for English, Mandarin Chinese.
Coding	Python, Matlab, Shell, C/C++, Html, Verilog, Assembly language, LaTeX, …
Libraries	PyTorch, Tensorflow, …

Miscellaneous Experience

Academic Reviewers

Conferences	**ICCV 2023**, **AISTATS 2021**.
Journals	**RA-L**.

Awards and Scholarships

2022	**Research Achievement Award**, National University of Singapore.
	MM'22 Top Paper Award, Association for Computing Machinery.
	MM'22 Student Travel Grant, Association for Computing Machinery.
2021	**President's Graduate Fellowship**, National University of Singapore.
2020	**Visiting Undergraduate Student Scholarship**, Tsinghua University.
2018	**Zheng Geru Scholarship**, Tsinghua University.

Teaching Assistants

2023 Spring	**CS5242**. Neural Networks and Deep Learning.
2022 Fall	**CS3244**. Machine Learning.
2022 Spring	**CS4243**. Computer Vision and Pattern Recognition.