Reo Yoneyama

Second-year Ph.D. student supervised by Prof. Tomoki Toda

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Email	yoneyama.reo@g.sp.m.is.nagoya-u.ac.jp
Publications	https://scholar.google.com/citations?user=Jqts5sAAAAAJ&hl=en
GitHub	https://github.com/chomeyama
Website	https://chomeyama.github.io/Profile/

RESEARCH AREAS

- Signal processing, Machine learning
- Analysis and synthesis of voice and musical instrument sounds
- Text-to-speech, Singing voice synthesis
- Voice conversion, Singing voice conversion
- Music signal processing, Music information retrieval

EDUCATION

Apr. 2023 – Present	Ph.D. candidate, Department of Intelligent Systems, Graduate School of Informatics, Nagoya University, Japan
Apr. 2021 – Present	TMI WISE program: Graduate Program for Lifestyle Revolution Based on Transdisciplinary Mobility Innovation
Apr. 2021 – Mar. 2023	Master's degree, Department of Intelligent Systems, Graduate School of Informatics, Nagoya University, Japan
Apr. 2017 – Mar. 2021	Bachelor's degree, Department of Computer Science, School of Informatics, Nagoya University, Japan
Mar. 2017	Graduated from Tochigi Prefectural Kanuma High School, Japan

WORK EXPERIENCE

July. 2024 – Present	Joint research project with the ASP team at LY Corp., Japan
Feb. 2023 – Mar. 2024	Joint research project with the ASP team at LY Corp., Japan
May 2022 – Present	Research & development internship at TARVO Inc., Japan
May 2021 – Jan. 2023	Research internship at the Voice team, LINE Corp., Japan
Dec. 2019 – Apr. 2021	Research & development internship at Acompany Co., Ltd., Japan

GRANTS

Apr. 2024 – Mar. 2026	Japan Society for the Promotion of Science (JSPS) Research Fellowship for Young Scientists (DC2) (200,000 JPY / month + 1,500,000 JPY) [website]
Apr. 2023 – Mar. 2026	Nagoya University Interdisciplinary Frontier Fellowship (180,000 JPY / month + 250,000 JPY / year) [website]
Apr. 2023 – Mar. 2026	TMI WISE Program Fellowship (180,000 JPY / month) [website]

AWARDS

Jan. 2024	SPS Japan Student Conference Paper Award 2023 [website]
Oct. 2022	2022 Tokai Area Speech-Related Research Laboratory Master's Midterm Presentation Q&A Award
Sep. 2021	23rd Japan Acoustics Society Student Excellent Presentation Award [website]
Nov. 2019	Domestic Qualifier of International Collegiate Programming Contest (ICPC) Asia Yokohama Regional 2019

PUBLICATIONS

JOURNALS

2023	**Reo Yoneyama**, Yi-Chiao Wu, Tomoki Toda, “High-Fidelity and Pitch-Controllable Neural Vocoder Based on Unified Source-Filter Networks,” IEEE/ACM Transactions on Audio, Speech and Language Processing, Vol. 31, pp. 3717-3729, Sep. 2023. [website]

Under Review

Reo Yoneyama, Ryuichi Yamamoto, Atsushi Miyashita, Tomoki Toda, “Wavehax: Aliasing-Free Neural Waveform Synthesis Based on 2D Convolution and Harmonic Prior for Reliable Complex Spectrogram Estimation”, Submitted in Nov. 2024. [website]

CONFERENCE PROCEEDINGS (PEER-REVIEWED)

2023

Ryuichi Yamamoto, **Reo Yoneyama**, Lester Phillip Violeta, Wen-Chin Huang, Tomoki Toda, “A Comparative Study of Voice Conversion Models with Large-Scale Speech and Singing Data: The T13 Systems for the Singing Voice Conversion Challenge 2023,” Proc. ASRU, 6 pages, 2023. [website]

Reo Yoneyama, Yi-Chiao Wu, Tomoki Toda, “Source-Filter HiFi-GAN: Fast and Pitch-Controllable High-Fidelity Neural Vocoder,” Proc. IEEE ICASSP, 5 pages, 2023. [website]

Reo Yoneyama, Ryuichi Yamamoto, Kentaro Tachibana, “Nonparallel High-Quality Audio Super Resolution with Domain Adaptation and Resampling CycleGANs,” Proc. IEEE ICASSP, 5 pages, 2023. [website]

Ryuichi Yamamoto, **Reo Yoneyama**, Tomoki Toda, “NNSVS: A Neural Network-Based Singing Voice Synthesis Toolkit,” Proc. IEEE ICASSP, 5 pages, 2023. [website]

2022

Reo Yoneyama, Yi-Chiao Wu, Tomoki Toda, “Unified Source-Filter GAN with Harmonic-Plus-Noise Source Excitation Generation,” Proc. Interspeech, pp. 848-852, 2022. [website]

2021

Reo Yoneyama, Yi-Chiao Wu, Tomoki Toda, “Unified Source-Filter GAN: Unified Source-Filter Network Based on Factorization of Quasi-Periodic Parallel WaveGAN,” Proc. Interspeech, pp. 2187-2191, 2021. [website]

CONFERENCE PROCEEDINGS (NON PEER-REVIEWED)

2025

Reo Yoneyama, Ryuichi Yamamoto, Atsushi Miyashita, Tomoki Toda, “Aliasing-Free Neural Vocoder Based on Complex Spectrogram Estimation with Harmonic Signal Modeling and 2D Convolution,” The Acoustical Society of Japan (ASJ), 1-2-9, Spring 2025. (in Japanese)

Kenichi Ogita, **Reo Yoneyama**, Wen-Chin Huang, Tomoki Toda, “VAE-SiFi-GAN: SiFi-GAN Based on Variational Autoencoder Representations”, The Acoustical Society of Japan (ASJ), 1-R-30, Spring 2025. (in Japanese)

2023	Ryuichi Yamamoto, **Reo Yoneyama**, Tomoki Toda, “NNSVS: A Neural Network-Based Singing Voice Synthesis Toolkit,” The Acoustical Society of Japan (ASJ), 1-9-19, pp. 1057-1060, Autumn 2023 (in Japanese)
	Reo Yoneyama, Yi-Chiao Wu, Tomoki Toda, “Source-Filter-Architecture-Based HiFi-GAN,” The Acoustical Society of Japan (ASJ), 2-3-5, pp. 721-722, Spring 2023 (in Japanese)
2022	**Reo Yoneyama**, Yi-Chiao Wu, Tomoki Toda, “Improvement of Unified Source-Filter Network with Adversarial Learning,” The Acoustical Society of Japan (ASJ), 1-3-10, pp. 907-908, Spring 2022 (in Japanese)
2021	**Reo Yoneyama**, Yi-Chiao Wu, Tomoki Toda, “Unified Source-Filter Network with Adversarial Learning,” The Acoustical Society of Japan (ASJ), 2-3-2, pp. 905-906, Autumn 2021 (in Japanese)
	Reo Yoneyama, Yi-Chiao Wu, Tomoki Toda, “ A unified source-filter network for neural vocoder,” IEICE Tech. Rep., vol. 120, no. 399, SP2020-34, pp. 57-62, 2021. (in Japanese)

LANGUAGES

Japanese	Native	
English	Intermediate	TOEIC Listening & Reading Test (Taken in May 2022) Score: 865 (Listening: 430, Reading: 435)

PROGRAMMING SKILLS

Experienced languages	Python, C, C++, JavaScript, HTML/CSS, R
Experienced DL frameworks	PyTorch, ONNX

ACTIVITIES

Dec. 2023 – Present	Technical advising for Melisma software, developed by Sakana Nakasako [paper]
Competitive Programming	AtCoder Highest Rating: 1545. [website]

	ICPC Asia Yokohama Regional, 2020.
	ICPC Asia Yokohama Regional, 2019.
Hackathon	JPHACKS @ Nagoya, Oct. 2019.