

YUYA YAMAMOTO

yamathcy.github.io

AlphaTheta Corporation, Japan

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RESEARCH INTERESTS

Music information retrieval

- Singing voice processing/transcription
- Musical audio identification
- Musical audio synthesis

Audio analysis

- Low-resource audio/speech identification
- Environmental sound analysis/identification

EDUCATION

Ph.D (Informatics)

Graduate School of Comprehensive Human Science, University of Tsukuba
Supervisor: Hiroko Terasawa

Apr 2021 - Mar 2024

Master (Informatics)

Graduate School of Library, Information and Media Studies, University of Tsukuba
Supervisor: Yuzuru Hiraga

Apr 2019 - Mar 2021

Bachelor (Media science)

The College of Media Arts, Science and Technology, University of Tsukuba
Supervisor: Yuzuru Hiraga

Apr 2017 - Mar 2019

Bachelor (Mechanics) (retired)

Chuo University

Apr 2013 - Mar 2017

LANGUAGE & TECHNOLOGY SKILLS

Language	Japanese (native), English (fluent), Korean (entry)
Programming	Python, R, JavaScript, C#, C, C++
Software & Tools	AWS, Unity, Docker, LaTeX
Frameworks	PyTorch, Tensorflow, SpeechBrain, React.JS

WORK EXPERIENCE

AlphaTheta Corporation

Engineer at the development division
Working on the development of new music technologies

Apr 2024 - present

Korea Advanced Institute of Science and Technology (KAIST)

Visiting student researcher (4 months)
Mentor: Juhan Nam

Aug 2022 - Dec 2022

Worked on deep learning based singing technique analysis from real-world tracks

Sigboost, Inc

Intern (2 weeks)

Feb 2022 - Mar 2022

Worked on music annotation user interface using *React.js*

National Institute of Advanced Industrial Science and Technology (AIST)

Aug 2019 - Sep 2019

Intern (4 weeks)

Mentor: Masataka Goto, Tomoyasu Nakano

Worked on Singing style analysis and conversion.

CA Techkids

Oct 2017 - Oct 2021

Intern (4 years)

Worked as a tutor of programming, Unity engineering, and textbook maker (Unity course).

PUBLICATIONS (PEER-REVIEWED)

(+ referred as selected publication)

Singing Technique Analysis with Correspondence to Musical Score on Imitative Singing of Popular Music⁺

Yuya Yamamoto, Tomoyasu Nakano, Masataka Goto, Hiroko Terasawa.

IPSJ Journal Vol. 64 No. 10, in Japanese (**IPSJ Specially Selected Paper**).

Toward Leveraging Pre-Trained Self-Supervised Frontends for Automatic Singing Voice Understanding Tasks: Three Case Studies.

Yuya Yamamoto.

In Proc. of APSIPA ASC 2023 (Accepted).

PrimaDNN': A Characteristics-aware DNN Customization for Singing Technique Detection.

Yuya Yamamoto, Juhan Nam, Hiroko Terasawa.

In Proc. of EUSIPCO 2023.

Human-in-the-loop Chord Progression Generator with Generative Adversarial Network.

Yoshiteru Matsumoto, Hiroyoshi Ito, Hiroko Terasawa, Yuya Yamamoto, Yuzuru Hiraga, Masaki Matsubara.

In Proc. of APSIPA ASC 2022.

Analysis and Detection of Singing Techniques in Repertoires of J-POP Solo Singers.⁺

Yuya Yamamoto, Juhan Nam, Hiroko Terasawa.

In Proc. of ISMIR 2022 (Overall acceptance rate: 43%, Special call session acceptance rate: 34%).

Deformable CNN and Imbalance-Aware Feature Learning for Singing Technique Classification.

Yuya Yamamoto, Juhan Nam, Hiroko Terasawa.

In Proc. of INTERSPEECH 2022 (Oral presentation, Acceptance rate: 50%).

Investigating Time-Frequency Representations for Audio Feature Extraction in Singing Technique Classification

Yuya Yamamoto, Juhan Nam, Hiroko Terasawa, Yuzuru Hiraga.

In Proc. of APSIPA ASC 2021.

AWARDS

- Dean's award of University of Tsukuba, 2024

- IPSJ Journal Specially Selected Paper, from IPSJ, 2023

- Sound Symposium Student Excellence Presentation Award, from IPSJ SIGMUS and SIGSLP, 2023, as a co-author

- IPSJ Yamashita SIG Research Award, from IPSJ, 2023

paper title: Analysis of frequency, acoustic characteristics, and occurrence location of singing techniques using imitated j-pop singing voice (at SIGMUS 132, 2021.)

- Best presentation award (Best research), from IPSJ SIGMUS, 2021

- Dean's award of **University of Tsukuba**, 2021
- Student award, from *IP SJ SIGMUS*, 2019

ACTIVITY

Reviewing

- *IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP)*: 2023, 2024
- *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*: 2025

Organizing

- *ISMIR 2022 paper reading meetup*: Jan 2023
- *ISMIR 2023 paper reading meetup*: Nov 2023

Talk

- *ISMIR 2022 report*, at *SIGMUS 136*. 2023
- *Lightning talk on Music Analysis Meetup (MUANA)* 2021, 2022, 2023
- *Guest lecturer for Junior high school student (career development)* 2021
- *Guest lecturer at University of Tsukuba (course: Music and Acoustic Information Processing)* 2021

RESEARCH GRANT

Support for Pioneering Research Initiated by the Next Generation; SPRING Oct. 2021 - Mar 2024

- Top 25%, JPY 500,000 per year

Travel Grant of The Telecommunications Advancement Foundation

- JPY 190,000 : 2022

ISMIR student author grant

- 100 % wavier: 2022

Last update: 2024.10.25