Curriculum Vitae

Sangeon Yong

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Education

Sep. 2017 – Present	Ph.D. program at Graduate School of Culture Technology Korea Advanced Institute of Science and Technology, Daejeon, Korea
Sep. 2015 – Aug. 2017	Master's program at Graduate School of Culture Technology Korea Advanced Institute of Science and Technology, Daejeon, Korea
Feb. 2011 – Aug. 2015	Bachelor of Science, in Electrical Engineering (Minor degree of Culture Technology) Korea Advanced Institute of Science and Technology, Daejeon, Korea

Academic Work Experience and Internships

Aug. 2019 – Feb. 2020	T-Brain, Naver Corp., Seoul, Korea Research Intern - Developed high performance piano transcription system with data augmentation and model optimization with meta learning.
Jun. 2018 – Sep. 2018	Clova Multimedia, Naver Corp., Seongnam, Korea Research intern - Developed a multiple instrument classification using multi-band audio input with ShuffleNet.
Jan. 2016 – Feb. 2016	Keio Media Design, Yokohama, Japan Student visiting program (advisor: Liwei Chan) - Developed new interface using relative touch pressure with Apple 3D Touch device.

Jul. 2014 – Aug. 2014 Graduate School of Convergence Science and Technology
Seoul National University, Suwon, Korea
Internship program (advisor: Kyogu Lee)

- Developed a compressor VST plugin with four different visualizers (level meter, level display, knee display and source display) with wdl-ol library.

Jan. 2013 – Jun. 2013 Korea Advanced Institute of Science and Technology
Undergraduate research program (advisor: Woon Seung Yeo)

- Developed a musical interface controlled by human voice with Max/MSP.

International Conference Proceedings

Singing Expression Transfer from One Voice to Another for a Given Song
Sangeon Yong, Juhan Nam
Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2018

Use the Force: Incorporating Touch Force Sensors into Mobile Music Interaction
Edward Jangwon Lee, Sangeon Yong, Soonbeom Choi, Roshan Peiris, Liwei Chan, Juhan Nam
Proceedings of the 13th International Symposium on Computer Music Multidisciplinary Research (CMMR), 2017

ForceClicks: Enabling Efficient Button Interaction with Single Finger Touch
Sangeon Yong, Edward Jangwon Lee, Roshan Peiris, Liwei Chan, Juhan Nam
Proceedings of the 11th International Conference on Tangible, Embedded, and Embodied Interaction (TEI), 2017

International Workshops and Challenges

PyTSMod: A Python Implementation of Time-Scale Modification Algorithm
Sangeon Yong, Soonbeom Choi, Juhan Nam
Late Breaking Demo in the 21st International Society for Music Information Retrieval Conference (ISMIR), 2020

Data Augmentation and Model Optimization for Piano Transcription
Sangeon Yong, Changhyun Kim, Jiwon Kim
Music Information Retrieval Evaluation eXchange (MIREX) in the 20th International Society for Music Information Retrieval Conference (ISMIR), 2019

International Journals

Use the Force: Incorporating Touch Force Sensors into Mobile Music Interaction
Edward Jangwon Lee, Sangeon Yong, Soonbeom Choi, Liwei Chan, Roshan Peiris, Juhan Nam
Lecture Notes in Computer Science (revised selected papers of CMMR 2017), Vol. 11265, 2018

Thesis

Transferring Singing Expressions from One Voice to Another
Sangeon Yong
M.S. thesis, KAIST, 2017

Patents

Singing Expression Transplantation System
Juhan Nam, Sangeon Yong
US Patent Application, 16326649, 2019

Voice Timbre Conversion System and Method from the Professional Singer to User in Music Recording
Juhan Nam, Sangeon Yong
Korea Patent Application, 10-2018-0151531, 2018

Singing Voice Expression Transfer System
Juhan Nam, Sangeon Yong
Korea Patent Grant, 10-1925217, 2018

Domestic Conference Proceedings

Singing Voice Expression Transfer System with Popular Music Recordings
(가창 음원의 음악적 표현 이식 시스템)
Sangeon Yong, Juhan Nam
Proceedings of the Korean Society of Speech Sciences (KSSS), 2019 spring

Research Projects

Jul. 2020 – Dec. 2020 T-Brain X, SK Telecom
- Project: Development of Multi-Singer Synthesis and Modification Algorithm

Jul. 2017 – Dec. 2020 Ministry of Trade, industry and Energy
- Project: Development of conversational speech synthesis technology to express emotion and personality of robots through sound source diversification

July. 2016 – Dec. 2018 Korea Creative Content Agency (KOCCA)
- Project: Development of Pattern, Phrase, Motif Based Korean Virtual Instruments

Awards

Korean Society of Speech Sciences (KSSS) Spring Conference Best Paper Award (2019)
Spring Semester URP Program Second Prize (2013)

Teaching Experience

Spring, 2019 Teaching Assistant, Graduate School of Culture Technology, KAIST
- Musical Applications of Machine Learning (graduate level course) Prof. Juhan Nam

Fall, 2018 Teaching Assistant, Graduate School of Culture Technology, KAIST
- Museum Technology in Digital Era (graduate level course) Prof. Jaehong Ahn

Fall, 2017 Teaching Assistant, Graduate School of Culture Technology, KAIST
- Knowledge-based System Design (graduate level course) Prof. Ji-Hyun Lee

Fall, 2016 Teaching Assistant, Graduate School of Culture Technology, KAIST
- Introduction to Culture Technology (undergraduate course) Prof. Wonjae Lee and Juhan Nam

Research Interests

Music signal processing (modification and synthesis)
Singing voice modification and synthesis
Human-computer interaction, especially for musical interface

References

Juhan Nam
Assistant Professor at Graduate School of Culture Technology, KAIST
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