Yoojin Kim

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Education

Korea Advanced Institute of Science and Technology (KAIST)   *Aug.2018 - Present*
M.S. in Graduate School of Culture Technology, Music and Audio Computing Lab.

Yonsei University, Seoul   *Mar.2014 - Aug.2018*
B.S. in Computer Science   *3.76/4.3 (4.02/4.3 in major)*

Research Interests

Data Science, Machine Learning, Deep Learning, Music Information Retrieval, Music Perception and Cognition

Publications

Papers

- **VirtuosoNet: A Hierarchical RNN-based System for Modeling Expressive Piano Performance**
  D.Jeong, T.Kwon, Y.Kim, K.Lee and J.Nam
  Proceedings of the 20th International Society for Music Information Retrieval Conference (ISMIR), 2019
- **Graph Neural Network for Music Score Data and Modeling Expressive Piano Performance**
  D.Jeong, T.Kwon, Y.Kim, and J.Nam
  Proceedings of the 36th International Conference on Machine Learning (ICML), 2019
- **Score and Performance Features for Rendering Expressive Music Performances**
  D.Jeong, T.Kwon, Y.Kim, and J.Nam
  Proceedings of the Music Encoding Conference, 2019

Patents

- **Method and Device for Multi-style Conditioned Expressive Piano Performance Rendering**
  J.Nam, D.Jeong, T.Kwon, Y.Kim,
  (Filing) 10-2020-0070101, 2020

Academic Talk

Domestic

- **Analysis of Performance Features According to Emotional Expression in Classical Piano Music**
  Y.Kim, J.Park, D.Jeong, T.Kwon, and J.Nam
  Korean Society of Music Perception and Cognition, 2020

Projects

Music Data Sentiment Analysis   *2019 - Present*
Samsung Science & Technology Foundation, Music and Audio Computing Lab, KAIST   *Advisor: Juhan Nam*

Expressive Performance Generation   *2019*
Samsung Science & Technology Foundation, Music and Audio Computing Lab, KAIST   *Advisor: Juhan Nam*

Data Oversampling for Session-based Purchase Prediction & Explanation   *2018*
Data Intelligence Lab, Yonsei University   *Advisor: Seung-won Hwang*

Haptic Retargeting using Sensors and VR Device   *2017*
Computer Graphics and Applications Lab, Yonsei University   *Advisor: In-kwon Lee*

Awards and Honors

VR/AR Grand Challenge Award   2019
Korea VR Festival 2019

High Honor Award   2018, 2017
Academic Achievement Award for high grade students, Yonsei University

The National Scholarship for Science and Engineering   *2017*
National scholarship for undergraduates with strong academic performance in science and engineering

Experiences

Exhibition
- **Deep Space Music in Ways of Seeing**
  NOS Visuals and KAIST Mac Lab, *Daejeon Museum of Art Special Exhibition*, Nov 2019 - Jan 2020

Teaching Experience
- Instructor, Data Science using Python, KAIST IT Academy, Oct 2020 - Dec 2020
- Instructor, C++ language, KAIST IT Academy, Dec 2019 - Mar 2020
- Instructor, C language, KAIST IT Academy, Jun 2019 - Dec 2019
- TA, GCT501 Introduction to Culture Techonology, KAIST GSCT, Spring, Fall 2019
- TA, CS101 Introduction to Programming, KAIST CS, Fall 2018

Interns
- Research Intern, Computer Graphics and Applications Lab, Yonsei University, Summer 2017
- Research Intern for Data Analysis, Yonsei University Severance Hospital, Summer 2015

Technical Skills

Programming: Python, C/C++, Java
Data Science: PyTorch, Tensorflow, pandas, scikit-learn, MySQL
Developer Tools: Git, Docker

Extra-Curricular Activities

Amateur Cellist   2019 - Present
Festival Ensemble Gaudium

Amateur Violist   2014 - 2018
Yonsei Amateur Orchestra   *principal in 2015*

Reference

Juhan Nam
Associate professor, Graduate School of Culture Technology, KAIST (contact)