

# Yoojin Kim

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## Education

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

*Aug.2018 - Present*

**Yonsei University, Seoul**  
*B.S. in Computer Science*

*Mar.2014 - Aug.2018*  
*3.76/4.3 (4.02/4.3 in major)*

## Research Interests

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

## Publications

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### 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

## Projects

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**Emotional Symbolic Music Data 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*

**Session-based Purchase Prediction and Explanation using GAN** *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

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**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

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### 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, 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

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**Programming:** Python, C/C++, Java

**Data Science:** PyTorch, Tensorflow, pandas

**Developer Tools:** Git, Docker

## Extra-Curricular Activities

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<b>Amateur Cellist</b> <i>Festival Ensemble Gaudium</i>	2019 - Present
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<b>Amateur Violist</b> <i>Yonsei Amateur Orchestra</i>	2014 - 2018 <i>principal in 2015</i>
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## Reference

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### Juhan Nam

*Assistant professor, Graduate School of Culture Technology, KAIST ([contact](#))*