



# Yu-Siang (Remy) Huang

APPLY MACHINE LEARNING TO MUSIC

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*Nothing changes if nothing changes.*

## Education

### National Taiwan University (NTU)

M.S. IN COMPUTER SCIENCE

Taipei, Taiwan

September 2018 - July 2020

- Thesis: Pop piano music generation using chord-encoded transformer
- Supervised by Yi-Hsuan Yang (Academia Sinica) and Jyh-Shing Roger Jang (NTU)

### National Tsing Hua University (NTHU)

B.S. IN INDUSTRIAL ENGINEERING

Hsinchu, Taiwan

September 2013 - June 2017

- Thesis: Mobile gesture-driven HCI techniques based on 3D dynamic time warping and machine learning algorithms
- Supervised by Szu-Hao Huang (NCTU)

## Experience

### Multimedia Research Center @ Tencent Music Entertainment (TME)

RESEARCHER

Shenzhen, China

April 2020 - Present

- Working on MIR tasks for QQ Music (one of the largest music streaming services in China)
- Hit song prediction and all sort of musical embeddings involving all sort of MIR tasks

### Music Team @ Taiwan AI Labs

RESEARCH INTERN (7-MONTH) & MACHINE LEARNING ENGINEER (3-MONTH)

Taipei, Taiwan

June 2019 - March 2020

- Working on symbolic-domain MIR tasks such as chord recognition and music generation
- Papers accepted by **ACM Multimedia 2020** and **ISMIR 2020**

### Xiaoice @ Microsoft

RESEARCH INTERN (SUPERVISED BY RUIHUA SONG)

Beijing, China

March 2018 - August 2018

- Working on music-related NLP tasks such as Chinese lyrics generation, and monodegreen generation

### Music and AI Lab @ Academia Sinica

RESEARCH ASSISTANT (SUPERVISED BY YI-HSUAN YANG)

Taipei, Taiwan

June 2017 - February 2018

- Working on audio-domain MIR tasks such as genre/emotion classification, highlight extraction, and AI DJ project
- Papers accepted by **APSIPA 2017**, **AAAI 2018** and **Transactions of ISMIR**

## Publication

### Automatic composition of guitar tabs by transformers and groove modeling

ISMIR 2020

YU-HUA CHEN, YU-SIANG HUANG, WEN-YI HSIAO, YI-HSUAN YANG

### Pop music transformer: Beat-based modeling and generation of expressive pop piano compositions

ACM Multimedia 2020

YU-SIANG HUANG, YI-HSUAN YANG

### Pop music highlighter: Marking the emotion keypoints

Transactions of ISMIR vol.1, no.1

YU-SIANG HUANG, SZU-YU CHOU, YI-HSUAN YANG

### Generating music medleys via playing music puzzle games

AAAI 2018

YU-SIANG HUANG, SZU-YU CHOU, YI-HSUAN YANG

### Music thumbnailing via neural attention modeling of music emotion

APSIPA 2017

YU-SIANG HUANG, SZU-YU CHOU, YI-HSUAN YANG