# HSIAO-TZU HUNG

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#### **EDUCATION**

National Taiwan University

Start from March 2020, plan to graduate in Feb. 2022

M.S @ Computer Science

National Tsing Hua University

September 2010 - June 2014

B.S @ Physics

### PROGRAMMING SKILLS AND COURSES

Machine learning: Python, PyTorch, TensorFlow

Engineering: Git, Linux, MongoDB, Docker, verilog, C++

#### WORK EXPERIENCE

## Amazon Ring, Taiwan

June 2021 - Aug. 2021

Acoustic engineering Intern

· Machine learning on speech processing

Research Center for IT Innovation, Academia Sincia, Taiwan Start from March 2020 Part-time Machine Learning Research Assistant; supervised by Dr. Yi-Hsuan Yang

· Building an emotion-based automatic piano composition model using self-attention based Transformers, within a joint project with Dr. Juhan Nam's group at KAIST, South Korea.

#### Taiwan AI Labs, Taiwan

Feb. 2019 – Feb. 2020

Full-time Machine Learning Research Internship

- · Automatic music generation
- · Music emotion recognition

## Institute of Information Science, Academia Sinica, Taiwan

July 2018 – July 2019

Full-time Research Assistant; supervised by Dr. Hsin-Min Wang

- · Acquired hands-on experience in automatic music generation using recurrent neural nets (RNNs).
- · Acquired hands-on experiences in speech processing and natural language processing.

## **PUBLICATIONS**

Hsiao-Tzu Hung, Joann Ching, Seungheon Doh, Nabin Kim, Juhan Nam and Yi-Hsuan Yang, "EMOPIA: A Multi-Modal Pop Piano Dataset For Emotion Recognition and Emotion-based Music Generation," in *Proc. International Society for Music Information Retrieval* (ISMIR), 2021.

Hsiao-Tzu Hung, Chung-Yang Wang, Yi-Hsuan Yang, Hsin-Min Wang, "Improving automatic Jazz melody generation by transfer learning techniques," in *Proc. Asia Pacific Signal and Information Processing Association Annual Summit and Conference* (APSIPA ASC), 2019.

Hsiao-Tzu Hung, Yu-Hua Chen, Maximilian Mayer, Michael Vötter, Eva Zangerle, Yi-Hsuan Yang "MediaEval 2019 Emotion and Theme Recognition task: A VQ-VAE based approach", in Proc. MediaEval Benchmarking Initiative for Multimedia Evaluation (MediaEval), 2019.