

HSIAO-TZU HUNG

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EDUCATION

National Taiwan University

March 2020 - Feb. 2022

M.S @ Computer Science

National Tsing Hua University

September 2010 - June 2014

B.S @ Physics

COURSES AND PROGRAMMING SKILLS

Courses: Deep Learning for Computer Vision by Prof. Yu-Chiang Frank Wang: **A+** (3rd place in Few-shot Long-tailed recognition competition), Machine Learning by Hsuan-Tien Lin: **A+** (top 10%)

Machine learning: Python, PyTorch, TensorFlow

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

WORK EXPERIENCE

Amazon Ring, Taiwan

June 2021 - Aug. 2021

Acoustic engineering Intern

- Implemented machine learning-based speech processing systems.

Research Center for IT Innovation, Academia Sinica, Taiwan

March 2020 - Feb. 2022

Part-time Machine Learning Research Assistant; supervised by Dr. Yi-Hsuan Yang

- Built an emotion-based automatic piano composition model using Transformers, within a joint project with Dr. Juhan Nam's group at KAIST, South Korea. (Publication 1)

Taiwan AI Labs, Taiwan

Feb. 2019 - Feb. 2020

Full-time Machine Learning Research Internship; supervised by Dr. Yi-Hsuan Yang

- Dealt with the problem of limited training data on Automatic music generation tasks. (Publication 2)
- Built a music emotion recognition system and a data collection pipeline. (Publication 3)

Institute of Information Science, Academia Sinica, Taiwan

July 2018 - July 2019

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

- Acquired hands-on experiences in speech processing and natural language processing.

PUBLICATIONS

1. **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.
2. **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.
3. **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.