# Yun-Ning Hung (洪韻甯)

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## **Education**

M. S in Music Technology, Georgia Institute of Technology

2019 Aug. - Present

**B. S. in Electrical Engineering,** National Cheng Kung University

2012 - 2016

• Cumulative GPA: 3.764/4.0

UW Madison Exchange Program, University of Wisconsin Madison

2015 - 2015

• Cumulative GPA: 3.67/4.0

## **Working Experience**

**Software Engineer Intern** at Amy.app, a NZ based online AI tutoring company

*2019 Summer.* 

Research on machine learning models to automatically solve math questions.

Develop feedback system by using typescript.

Research Assistant at Academia Sinica, national academy of Taiwan

2017 - 2019

Research on applying deep learning algorithm to music information retrieval

Published five papers, including one top conference paper, which contribute to audio auto-tagging, music transcription and music generation.

Invited speaker of the 6th TMAC workshop

**Industrial Partnership** with KKBOX Inc, the biggest online streaming company in Taiwan

2017 - 2019

Cooperate with machine learning team to research on music auto-tagging problem.

Proposed several new model architectures which averagely improve auto-tagging result (F-score) by (5%†) and help generate more efficient playlist.

App and Web Developer at Adv.Media (銳比數位), application company

2016 - 2017

Participated in four AR/VR applications development by using Unity, which were launched on both Google Play and App Store

Developed web platform to visualize and manage database

## **Publication**

[1] Musical Composition Style Transfer via Disentangled Timbre Representations Yun-Ning Hung, I-Tung Chiang, Yi-An Chen and Yi-Hsuan Yang International Joint Conferences on Artificial Intelligence (IJCAI), 2019

Peer-Reviewed First-Author

[2] Frame-level Instrument Recognition by Timbre and Pitch Yun-Ning Hung and Yi-Hsuan Yang

Peer-Reviewed First-Author

International Society for Music Information Retrieval Conference (ISMIR). 2018

[3] Multitask learning for frame-level instrument recognition Yun-Ning Hung, Yi-An Chen and Yi-Hsuan Yang

Peer-Reviewed First-Author

IEEE Int. Conf. Acoustics, Speech and Signal Processing (ICASSP), 2019.

[4] Learning Disentangled Representations for Timber and Pitch in Music Audio Yun-Ning Hung, Yi-An Chen and Yi-Hsuan Yang arXiv preprint arXiv: 1811.03271, Nov. 2018.

First-Author

[5] Hit Song Prediction for Pop Music by Siamese CNN with Ranking Loss Lang-Chi Yu, Yi-Hsuan Yang, Yun-Ning Hung, Yi-An Chen arXiv preprint arXiv: 1710.10814, Oct. 2017.

Non Peer-Reviewed

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#### **Technical Skill**

Web & Application HTML, Javascript, Typescript, CSS, PHP-SQL, and Unity **Machine Learning** Python, Pytorch mostly, but sometime in Tensorflow

Git, Linux **Others** 

Language Chinese (mother tongue), English, Spanish