





# Yun-Ning Hung (洪韻甯)

Contact: biboamybibo@gmail.com / Searching for 2020 summer internship

 biboamy  yun-ning-hung  <https://biboamy.github.io/>  Yun-Ning Hung

## Education

- M.S. in Music Technology**, Georgia Institute of Technology, USA *Aug. 2019 - Present*
- B.S. in Electrical Engineering**, National Cheng Kung University, Taiwan *2012 - 2016*
- Cumulative GPA: 3.764/4.0
- UW-Madison Exchange Program**, University of Wisconsin-Madison, USA *Fall 2015*
- Cumulative GPA: 3.67/4.0

## Work Experience

- Research Assistant** at Academia Sinica, the national academy of Taiwan *2017 - 2019*
- Applied deep learning algorithms to music information retrieval problems.
  - Published five papers, including one top conference [1], with contributions to audio auto-tagging, music transcription and music generation.
  - Invited talk: Multi-task learning model for multi-pitch streaming and music style transfer. At the *6th Taiwanese Music and Audio Computing workshop*.
- Industrial Partnership** with KKBOX Inc, the largest music streaming company in Taiwan *2017 - 2019*
- Collaborated with the machine learning team to investigate music auto-tagging.
  - Improved auto-tagging results (F-score) by more than 5% by proposing several new model architectures, resulting in more efficient playlist generation.
- Software Engineer Intern** at Amy.app, a NZ based online AI tutoring company *Summer 2019*
- Explored machine learning models to automatically solve junior and senior high school math questions.
  - Developed a feedback system using typescript.
- App and Web Developer** at Adv.Media, an Asia-based mobile application company *2016 - 2017*
- Participated in the development of four AR/VR applications using Unity, all of which were launched on both Google Play and the iOS App Store.
  - Developed a web platform to visualize and manage our user database.

## Publications

- [1] **Musical Composition Style Transfer via Disentangled Timbre Representations** *Peer-Reviewed*  
Yun-Ning Hung, I-Tung Chiang, Yi-An Chen and Yi-Hsuan Yang *First-Author*  
*International Joint Conferences on Artificial Intelligence (IJCAI)*, 2019 *17% acceptance rate*
- [2] **Frame-level Instrument Recognition by Timbre and Pitch** *Peer-Reviewed*  
Yun-Ning Hung and Yi-Hsuan Yang *First-Author*  
*International Society for Music Information Retrieval Conference (ISMIR)*, 2018
- [3] **Multitask learning for frame-level instrument recognition** *Peer-Reviewed*  
Yun-Ning Hung, Yi-An Chen and Yi-Hsuan Yang *First-Author*  
*IEEE Int. Conf. Acoustics, Speech and Signal Processing (ICASSP)*, 2019.
- [4] **Learning Disentangled Representations for Timber and Pitch in Music Audio** *Non Peer-Reviewed*  
Yun-Ning Hung, Yi-An Chen and Yi-Hsuan Yang *First-Author*  
*arXiv preprint arXiv: 1811.03271*, Nov. 2018.
- [5] **Hit Song Prediction for Pop Music by Siamese CNN with Ranking Loss** *Non Peer-Reviewed*  
Lang-Chi Yu, Yi-Hsuan Yang, Yun-Ning Hung, Yi-An Chen  
*arXiv preprint arXiv: 1710.10814*, Oct. 2017.

## Technical Skills

<b>Web &amp; Applications</b>	HTML, Javascript, Typescript, CSS, PHP-SQL, and Unity
<b>Machine Learning</b>	Python, PyTorch, TensorFlow
<b>Others</b>	Git, Linux
<b>Language</b>	Mandarin Chinese (mother tongue), English, Spanish