

# JADEN YIFAN HE

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👤 [Website](#)

## Education

**Carnegie Mellon University, *School of Music/CS/ECE***

**Aug 2021 – Present**

*M.S., Music and Technology, Fellowship*

*Pittsburgh, PA*

**University of North Carolina at Chapel Hill, *iSchool***

**Class of 2021**

*B.S., Information Science; Minor, Music; GPA: 3.9/4; Graduated with honor and highest distinction*

*Chapel Hill, NC*

## Relevant Coursework

- Machine Learning
- Signal Processing
- Computer Programming
- Audio Production
- Information Retrieval
- Database Management
- Web Development
- Systems Design

## Experience

**Carnegie Mellon University**

**Sep 2021 – Present**

*Audio Engineer*

*Pittsburgh, PA*

- Recorded and webcast student and faculty recitals, ensemble concerts, and university events.
- Set up and managed audio equipment, and edited/mastered the recorded projects.

**Tencent Music Entertainment, *Multimedia Lab***

**May 2019 – Nov 2020**

*Algorithm Research Assistant*

*Shenzhen, China*

- Collaborated music metadata labeling for improving QQ Music's audio fingerprint algorithm by 7%.
- Managed QQ Music's database, labeled and proofread music files, and published over 3000 files online.
- Designed and built our team website, for better data storage/extraction, and the display of our research results.
- Lead and evaluated online reviews for functions of QQ Music on social media and reported weekly to the Lab manager.

**Universal Music Group**

**June 2020 – Aug 2020**

*Data Analyst Intern*

*New York, NY*

- Compiled pivot and Tableau tables on sales records in eCommerce stores, and report weekly to the team manager.
- Organized and provided product information to the relevant teams for product setup.
- Monitored inventory levels for stores and requested replenish stock as necessary.

**Raccoon Records**

**June 2018 – Aug 2018**

*Web Operation Intern*

*Shanghai, China*

- Published over 20 Tweets weekly of the company and vinyl culture on social media to attract potential customers.
- Managed the warehouse database via SQL, labeled the ID and genre over 600 vinyl records.
- Maintained the online sales platform, handling users' purchase and return requests, made daily sales over 15 times.

## Research and Community Involvement

**Singapore University of Technology and Design, *Audio, Music, and AI Lab***

**June 2021 – Aug 2021**

- Collaborated chord and rhythm generation for video task in aiMuVi project lead by Dr. Dorien Herremans.
- Developed a GCN and Transformer decoder to map human body movement with MIDI events.

**University of North Carolina at Chapel Hill, *Honor Thesis; Advisor: Dr. Jaime Arguello***

**Apr 2020 – May 2021**

- *Evaluating Collaborative Filtering Algorithms for Music Recommendations on Chinese Music Data.*
- Compared Memory-based and Model-based collaborative filtering algorithms on our Chinese music dataset.

**Stanford University, *Center for Computer Research in Music and Acoustics***

**June 2020 – Aug 2020**

- Implemented DeepSpeech, Crepe, and GrFNNs models for music recognition/synthesis and semantic analysis tasks.
- Implemented SCAMP framework to compose own music with Python.

**New Interfaces for Musical Expression Conference, *Staff***

**June 2021 – Present**

**International Society for Music Information Retrieval, *Member***

**Aug 2020 – Present**

**Audio Engineering Society, *Member***

**July 2020 – Present**

## Technical Skills

**Languages:** Python, Java, C/C++, HTML/CSS, JavaScript, MATLAB, SQL, Max/MSP, ChuckK

**Developer Tools:** Git, Docker, Google Cloud Platform, Amazon Web Services, VS Code, PyCharm, IntelliJ, Eclipse

**Libraries/Frameworks:** Scikit-learn, TensorFlow, NumPy, Librosa, Matplotlib, SciPy, Lucene, React, Django, Flask

**Audio:** Pro Tools, Logic Pro, Adobe Audition, Sonic Visualiser, Audacity, Open Music, MuseScore