

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, Chuck

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

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

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