

JUNHAO WANG

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EDUCATION

Master of Arts, Music Technology

September 2020 - Present

McGill University, Montreal, QC, Canada

- Distributed Digital Music Archives & Libraries Lab (DDMAL)
- Centre for Interdisciplinary Research in Music Media and Technology (CIRMMT)
- GPA: 4.0 / 4.0

Bachelor of Engineering, Digital Media Technology

September 2016 - July 2020

Communication University of China, Beijing, China

- Key Laboratory of Media Audio and Video, Ministry of Education
- GPA: 3.46 / 4.0
- Outstanding Bachelor Thesis

PROJECT HIGHLIGHTS

HPCP Key Finder

- Spectral analysis for extracting Harmonic Pitch Class Profiles (HPCP) from polyphonic audio signals
- Key estimation based on correlation with key profile vectors

Electric Guitar Synth

- Plucked string sound synthesis based on extended Karplus-Strong algorithm
- Various signal processing techniques used for emulating glissandi, tone control, distortion, and feedback effect

Talking-bot

- Chatbot based on Baidu speech-recognition and synthesis API
- Graphical user interface and realtime response

EXPERIENCE

Research Assistant

September 2020 - Present

Distributed Digital Music Archives & Libraries Lab (DDMAL)

Montreal, QC, Canada

- Django web development for CantusDB
- Experience with Compute Canada cloud infrastructures

Local Coordinator

October 2020

The 21st International Society for Music Information Retrieval (ISMIR) Conference

Montreal, QC, Canada

- Host and support conference events
- Coordinate volunteers and session organizers
- Support and manage the virtual conference platforms

Research Assistant

May 2019 - July 2020

Key Laboratory of Media Audio and Video, Ministry of Education

Beijing, China

- Develop algorithms for automatic music generation and musical style translation
- Analyze and evaluate state-of-the-art deep learning models for music and audio information retrieval tasks

Student Participant

July 2019 - August 2019

University of British Columbia

Vancouver, BC, Canada

- 4-week intensive program on acoustics and signal processing tasks offered by Electrical and Computer Engineering
- Final grades: 95 / 100 (A+)

RESEARCH INTEREST

Audio Information Retrieval

- Extract various audio features through spectral analysis of audio signal
- Utilize machine learning and deep learning models to recognize audio patterns and clusters
- Specific application in sound event detection and music transcription

SKILLS

Programming Language: Python, Matlab, C/C++

Machine Learning: Python, Matlab, Tensorflow

Web Development: HTML, CSS, JavaScript, Django

Language: English-IELTS 8.0, Chinese Mandarin-native, French-un peu

Last updated: 2021-02-02