

# Yuxuan Wu

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## EDUCATION

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### Shanghai Jiao Tong University

09/2017 - 06/2021

School of Electronic Information and Electrical Engineering

Bachelor of Engineering in **Information Engineering**

- GPA: **85.4/100, 3.55/4.3**
- Honor: Merit Student (2018)
- Relevant Coursework: Data Structure & Algorithm, Digital Signal Processing, Machine Learning, Big Data Mining, Embedded System & Assembly

## RESEARCH INTEREST

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My research interest spans widely over the field of music technology from music information retrieval to music perception, hoping to exploit more possibilities of the application of new technologies in musicology, music production, music performance and etc.

## EXPERIENCE

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### Lab of Audio and Music Technology, Fudan University

07/2019 – Present

Research Intern Supervised by Prof. Wei Li

Shanghai, China

- Voice register recognition in singing evaluation: Recorded and labelled the vocal dataset used for machine learning. Implemented the program to classify the vocal samples using a 1D-CNN with Mel-spectrograms as the inputs. The proposed model reached an accuracy of 99.15% on the self-constructed dataset, which surpassed the performances of previous methods.

### AI Lab, Bytedance Inc.

07/2020 – Present

Research Intern

Shanghai, China

- Designed and implemented a multi-track music texture generator and its GUI: The program generates multi-track MIDI files different every time using probability-based models and according to the users' input of chord progressions and styles.
- Improve the performance of AI melody generation models: Modified the model structure with prior music knowledge and reduced the manual participation rate in AI composing by over 20%.

### University of California, Berkeley

07/2019 - 08/2019

Summer Student

Berkeley, CA

- Courses: Sound and Music Computing using CNMAT Technologies, Emotional Intelligence
- Designed and implemented *Project Ming*: An interactive sound system simulating the sound ambience in a traditional Chinese town based on Odot. Users can stroll in given town maps hearing the subtle volume, pan and EQ changes of ambient sounds.
- Designed and implemented *Synth Achilles*: A mini mix console with plug-ins and a synthesizer simulating different instruments based on Odot.

## MISCELLANEOUS

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- **Programming:** Python, Matlab, C, C++, Max/MSP, VHDL, Verilog, Assembly Language
- **Languages:** Mandarin Chinese (Native), English (TOFEL: 108/120)
- **Music Production:** Singer/Producer, proficient in a variety of music producing softwares such as Cubase, FL Studio, Logic X Pro and Melodyne. The stage name is *BowOfAtlas*. View works at <https://music.apple.com/us/artist/bowofatlas/1474860092>.