## YUHANG JIANG

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#### **EDUCATION**

Anhui University Sep 2019 - Jun 2023

Intelligent Science and Technology School of Internet

GPA: 3.01/5.00 (Junior GPA: 3.92/5.00)

Awards: The Second Prize Scholarship of Model Student of Academic Records(12/2022)

The First Prize Scholarship of Academic science and technology(12/2021)

Courses: Machine Learning, Pattern Recognition, Analysis of Big Data, Numerical Analysis, Natural Language Processing.

## RESEARCH EXPERIENCE ( ALL IS SOLO )

### Music Generation Toolkit (based on Pytorch)

Dec 2022

- · A collection of excellent music generation models in recent years.
- The music data format includes compound word and REMI.
- The model is mainly transformer, including transformer XL, Vanilla Transformer, etc.
- It can freely combine models to generate music.

### Visualization Platform for COVID-19 Focus Segmentation

Oct 2022

- Offline inference, real-time display of segmentation results, and support NII file export
- Used UNet and BiSeNetV2 to segment COVID-19 lesion
- · Used PyQt5 to visualize the nii image format

### Scissors Stone Cloth finger guessing based on Jetson Nano

Jun 2022

- All are developed on the Jetson Nano, including data collection, model training and testing
- Support real-time data reading (captured by camera) and automatically give game results

# **Music Generation Based on LSTM**

Nov 2021

• Used music21 to complete the conversion of midi format, and use LSTM to build a music generation model

### **PUBLICATIONS**

- Y.Jiang\*, W.Tong, "Improved lightweight identification of agricultural diseases based on MobileNetV3", CAIBDA 2022(oral).
- 2. Software Copyright of Intelligent contract software for agricultural insurance compensation. 2022SR1568111. Nov. 2022 Note: \* indicates the corresponding author

### **COMPETITIONS**

## Mathematical Contest In Modeling(MCM), Finalist winner

Apr 2021

### Leader

- · Designed a set of algorithms to assess the degree of hunger around the world and optimize the food supply chain
- · Responsible for modeling, programming and part of paper writing
- . The youngest winner in the history of Anhui University and the first winner of School of Internet

### The second prize in iCAN Innovation Contest 2021(Anhui)

Oct 2021

#### Team member

- Developed a set of hardware system capable of intelligently monitoring and warning the abnormal behavior of the elderly
- Responsible for some STM32 development and project plan writing

# **PROFESSIONAL EXPERIENCE**

Algorithm Intern Chengdu, Sichuan, China

• Researched the newest machine learning algorithms and industrial anomaly detection algorithm

- Applied GAN models to reconstruct images to identify anomalies and evaluate the performance
- Used the object detection neural network model to detect abnormal parts in high-speed rail supports
- Assisted colleagues in developing a set of character recognition patents for LCD meters

# **SKILLS LIST**

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

Toolkits: Pytorch, Tensorflow, PaddlePaddle, Sklearn, etc.