Mr. Wei Yufeng

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Education Background

East China University of Science and Technology 01/2019-01/2023

- Major: Mechatronics, Robotics and Automation Engineering GPA :3.3/4.0
- Degree: Bachelor of Engineering

University of Manchester 09/2024-now

- Major: Robotics
- Degree: Master's degree student

Academic Experience

Music Generation Model based on Wavenet and LSTM -Individual project 09/2021-11/2021

- Dataset Selection：330 classical music songs were selected from the open source music dataset of the Isabella Stewart Gardner Museum and European Archives.
- Dataset Processing：By converting midi files into arrays, the array was sliced to extract piano themes from the music and the repetitive phrases were removed.
- The infrequently used notes were eliminated from the model to reduce the amount of model calculation.
- The default wavenet and lstm models were imported for training, and the Relu function was used for the activation function.
- Most of the music output by the model was repetitive low-frequency accompaniment, so music21 was used to filter the low-frequency accompaniment syllables before training.

PLC Resistance Sorter -Group Leader 12/2020-08/2021

- The automatic sorter of resistance value of the resistance sheet controlled by PLC was used and the air pump acted as the power source, so that the operating environment can reach the industrial standard.
- The layout and installation process was simple, the efficiency was more than similar competitive products 10%-15%, and the production cost of the machine was relatively low. Has a certain market competitiveness, and has signed supply contracts with some manufacturers.
- PLC was used to communicate with RTU, and RTU was used to connect with cloud web page control interface. After logging in through mobile browser, cloud control was performed directly.
- Optimized the valve switch when the air source pressure was unstable, improved the continuous and stable running time and safety of the machine.
- Was responsible for the development of PLC program and some embedded cloud control functions.

Skills

- Proficient in Python, java, Matlab, Simulink.
- Experience in building various artificial neural network models.
- Experience in data processing and data mining.
- Good communication skills.

Awards and certificate

- the Internet Plus National College Student Competition
- First Prize of School (2%)
- CET-6（554）