ID2223 Project - Piano Music Generation

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1 Project Description

For this project, I will build a model that can generate piano music based on input from a user. For example, the user inputs a sequence of notes and how many notes the model should generate, and the output will be an audio file created from the notes generated by the model.

2 Dataset

The dataset that will be used for this project is the Maestro (MIDI and Audio Edited for Synchronous TRacks and Organization) dataset, which consists of around 200 hours of piano performances [1].

3 Technologies

Tensorflow will be used to build the model, which will be a RNN, GRU or LSTM depending on time and available computing resources. Hopsworks will be used to store the data and the trained model. Huggingface will be used to deploy a user interface.

References

[1] Curtis Hawthorne et al. "Enabling Factorized Piano Music Modeling and Generation with the MAESTRO Dataset". In: *International Conference on Learning Representations*. 2019. URL: https://openreview.net/forum?id=r1lYRjC9F7.