

Musify- Music Composition using A.I



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Music Composition

- Music Composition is a process of creating a new piece of music.
- The model-generated music need not be professional, as long as it is melodious and good to hear.
- Parameters such as pitch interval, notes, chords, tempo etc. are used for composing short piece of music





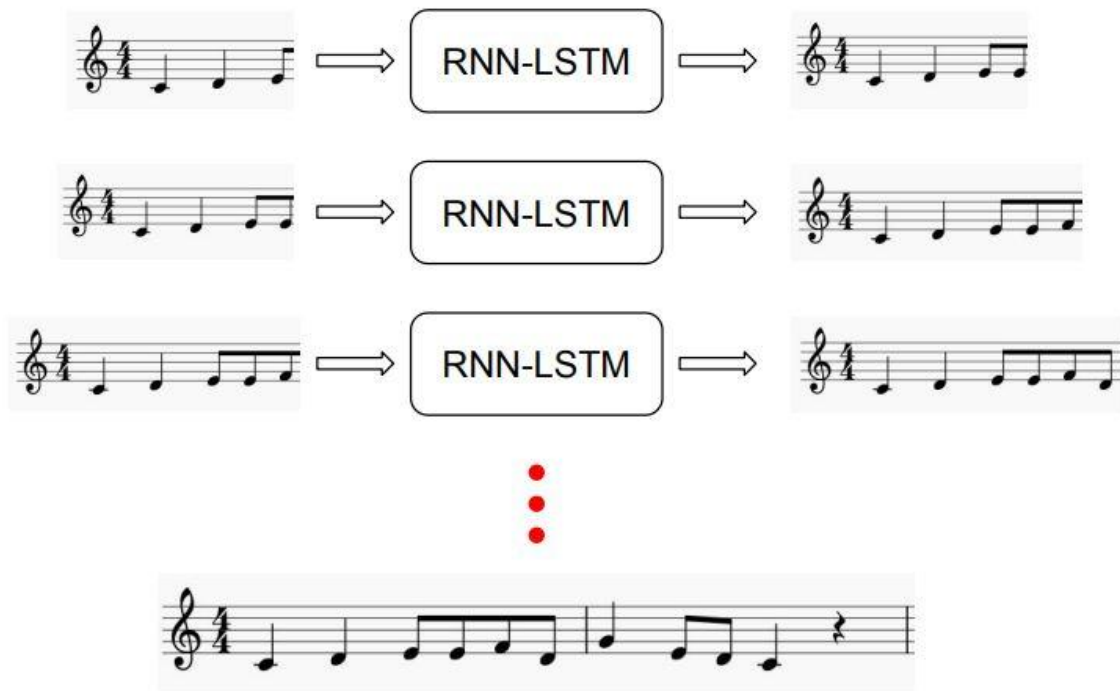
Project Description

- Project focuses on music generation model training model through sample notes of Piano & make it produce new music.
- Uses LSTM(Long-Short Term Memory), a type of Recurrent Neural Network (RNN) for model training.
 - Platform: Google Colab
 - Programming Language: Python 3.8
 - Libraries Used: TensorFlow, Music21, Keras, NumPy, Sklearn, tqdm
 - Dataset: Classical Music MIDI | Kaggle

Steps Involved

- Importing libraries
- Reading and parsing the MIDI Files
- EDA and DATA preparation
- Building the Model, training the model
- Hyperparameter tweaking
- Listen to AI generated music

Model Training



Work Flow

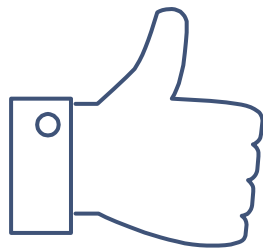
- Week 1: Brushing up basic python concepts
- Week 2: Started with reading relevant articles on music generation
- Week 3: Neural network and relevant concepts of deep learning
- Week 4: Started Learning Tensorflow
- Week 5: Tinkering with tensorflow and RNN LSTM
- Week 6: Implementation part started
- Week 7: model training and building
- Week 8: Submission documentation and repo

Results



AI generated music





THANKS!