

Assignment 09: Jazz Solo Improvisation using Generative Neural Networks

CSci 560: Neural Networks and Deep Learning

Description

Welcome to our programming assignment on doing generative AI using neural networks. In this notebook, you will implement a model that uses an LSTM recurrent layer to generate music. At the end, you'll be able to listen to the Jazz solos that your networks generates.

Instructions:

- As with the previous assignment, you will need to create the function declarations asked for in `src/assg_tasks.py`. Make sure you use [Python Docstrings](#) and are generally following [Pep8 Python Style Guide](#) for your code.
- Cells with `### TESTED` comment contain unit tests that are run on your implementation. You will need to uncomment the call to the unit tests, but otherwise need to stay as given in the original notebook.
- Likewise since you need to write your declaration of the functions asked for the tasks, don't forget to uncomment/add the appropriate `from assg_src include X` statements in both this notebook and in the `../src/test_assg_tasks.py`

Objectives

You will learn:

- Apply an LSTM to a music generation task.
- Generate your own jazz music with deep learning.
- Practice using the flexible Keras Functional API to create networks

Overview and Setup

Assignment Tasks

Assignment Submission

Additional Information