

1. Setting up the Environment:
 - a. Installed *requests*, *mido*, and *python-rtmidi* libraries in Python to handle HTTP requests, MIDI processing, and MIDI I/O.
 - b. Set up loopMIDI, a software that creates virtual MIDI ports for communication between my Python script and Reaper. Created a new virtual MIDI port in loopMIDI.
2. API Configuration and Data Retrieval:
 - a. Used the World Air Quality Index API, configuring my script to retrieve air quality data near NYU Steinhardt.
 - b. Made HTTP requests to the API, handling the responses and parsing the JSON data to extract necessary air quality metrics.
3. Data Parsing and MIDI Message Preparation:
 - a. implemented functions in your script to parse and normalize the API data, preparing it for conversion into MIDI messages.
 - b. mapped air quality metrics (such as pm 2.5) to MIDI parameters, such as note pitch and velocity.
4. Reaper Configuration:
 - a. In Reaper, created a new track and loaded a virtual instrument onto this track to synthesize sound from incoming MIDI data.
 - b. Configured the track to receive MIDI input from the virtual MIDI port created in loopMIDI.
5. MIDI Communication and Script Testing:
 - a. Script sent MIDI messages through the virtual MIDI port by running my code
 - b. Adjusted MIDI message parameters and virtual instrument settings in Reaper to modify the sounds and make the sounds more audible.
6. Repeated Testing and Modification in Script