

Algorithms to Generate Compositions in Baroque or Classical Style

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Our final project will revolve around the creation of a program to algorithmically generate music. We will use computer algorithms to generate a piece of music, probably in the classical or baroque styles (at least to start) and output the result to a midi file. The initial step in this will involve creating a harmony to an inputted melody, and eventually to implement a melody generation algorithm as well (which will then be fed to the harmony generating algorithm to generate a fuller piece of music). The project will focus on technological composition and the sounds presented will be arbitrary, depending on the midi sequencer used - in initial tests, the virtual instrument will most likely be a piano. This project will focus on the mathematical relationships between notes as well as the structure of melodies, and the relationship between melody and harmony.