

## **Exploring Data Flow in Computer-Created Music**

All computing is manipulation of data. Functionality is achieved by receiving, interpreting and manipulating data to reach some desired result or outcome. While the larger portion of web-design and software development frameworks involve text based interfaces, a media programming application called Max/MSP relies mostly on graphical user interfaces for creating music, video, and performance installations. Max/MSP is modular visual programming language. Objects (modules) that perform some specific function are visually connected with cords that allow data transfer and calculations. It is especially interesting to explore how these numbers, or bits of data, could be used and interpreted as musical pitch, audio signal, sequence of musical events, etc. This can easily allow one to quickly create a self-developing musical environment. The goal of the project is to show how effortlessly one can create algorithmically developing musical patterns from scratch and automatically change rhythm, pitch, arrangement, timbres of sounds, and even temporal synchronization of musical events. This data can even be used to produce or manipulate graphics and animation.

My presentation will include a short demonstration of programming in Max/MSP to create music followed by a musical performance showing some of the work I and my mentor have explored in this software over the past year. A question and answer session will follow our performance.