

# CS280r Final Project Report

## *Αρμονία* (Harmonia): A System for Collaborative Music Composition

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### Abstract

Increasing productivity of music composition has many positive benefits. Listeners would appreciate individually tailored music to their emotional needs and context. Composers would be facilitated by greater and more diverse cooperation yielding more innovative music. Composition agents could assist in the generation of repetitive or experimental musical forms. Therapists can use music as part of a treatment plan for autism and many other disorders. The system we propose attempts to address these myriad needs by offering two key innovations: a SharedPlan with collaborative versioning to mediate the workflow of a composition, an algorithmic evaluation of a composition against the intention of the SharedPlan to provide guidance to both human and agent composers.

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### 1. Introduction

Should contain an overview of the problem to be addressed, the approach taken to address that problem, and the results of that approach. Should provide the reader with a road map for how your argument will be developed in the other sections of the paper.

### 2. Body of the Paper

- **Experimental Design.** A description of the experiment that was run; enough detail should be provided that the reader could reasonably duplicate the experiment. Results should not be reported in this section.
- **Results.** A report of the results of the experiments, and their significance.

#### 2.1. Citations

Here are two examples of how to cite a paper properly:

- ? shows that ...
- Prior work has shown that ... (?).

### **3. Related Work**

Discussion of previous important, similar work in the area with comparison to the particular approach taken and results of the paper. Avoid simply providing a laundry list of other work that is somehow related to the subject of the paper. This section should contain brief, in depth discussions of the work most similar to your project, i.e., to research that takes an approach to the problem or produces results with which your project should be compared. As is always the case with written work, throughout the paper you should have citations to work that you draw on. For example, if you have adapted a system, include a citation to the system when you first mention it; if you are extending a formalization, include a citation to the original on first mention. If you are unclear about whether a simple citation suffices or an extended discussion is needed in the Related Work section, look at the papers read for class this semester for models. If you are still unsure, check with the teaching staff.

### **4. Conclusion**

Describes the insights that can be taken away from the work reported in the paper.

### **5. Future work**

Suggests extensions or challenges raised by the project.