

## **Senior Project Proposal:**

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### Web Development Using the Model-View-Controller Programming Architecture

#### **Synopsis**

I will develop a web-based application used for the promotion and display of my completed works, computer science and music related, as well as a fully-functional web-store for the sale of downloadable music and music creation software created and owned by me.

#### **User Details**

##### **Completed Works Portfolio: Computer Science**

This will be a portfolio of my best computer science related projects, applications, and assignments. All computer science portfolio items will include a viewable copy of the item, a description of the project and of its implementation, and a copy of the source code.

##### **Completed Works Portfolio: Music**

This will be a portfolio of my best original musical productions and arrangements. Each will have a description of the piece and a link to where it can be purchased or downloaded at the web-store or elsewhere.

#### **Web-Store**

This will be the most complex section of the web application. At the web-store, users will be able to purchase digital copies of music and music creation software created and owned by me. The web-store will be access-code based meaning that once the user has selected what they wish to purchase, and has successfully paid through a secure online payment service, an access-code will then be provided and used to login to a personalized customer's section where the user's purchase can be downloaded.

#### **Implementation Details**

In order to make the development process as efficient as possible, the Model-View-Controller programming architecture will be used. This requires a complete separation of content, display-style, and domain logic; the purpose of this being that a change in one will not adversely affect the others. For example, in the web-store, all items and item descriptions will be stored in a content database (*model*), an independent set of instructions will dictate how the items are displayed (*view*), and another independent set of instructions will dictate how to calculate the final price for a purchase (*controller*).

The entire application will employ the latest web development standards and technologies in addition to being visually appealing and easy to navigate. During the project's development, I will learn and utilize emerging web-technologies in order to give my web application a modern appeal.