**Computer Science Capstone Topic Approval Form**

The purpose of this document is to help you clearly explain your capstone topic, project scope, and timeline. Identify each of these areas so that you will have a complete and realistic overview of your project. Your instructor cannot sign off on your project topic without this information*.*

*Note: You must fill out and submit this form. Space beneath each number will expand as needed.*

*Note: Any costs associated with developing the application will be the responsibility of the student.*

**INFORM INSTRUCTOR:**

Potential use of proprietary company information: (Y/N)  
No Proprietary company information will be used

**ANALYSIS:**

1. Project topic and description:

Individuals spending analysis. Use machine learning to identify trends in spending habits for an individual who may want to fix or improve those habits

1. Project purpose and goals:

the purpose of the project is to utilize machine learning to identify trends in an individuals spending.

1. Descriptive method:

charts and graph visualizing the spending data in various ways machine learning will be applied to find pattern within the data. For Example identifying a day of the week where the user most often buys starbucks.

1. Predictive or prescriptive method:

**DESIGN and DEVELOPMENT:**

1. Computer science application type (select one):

* Stand-alone

1. Programming/development language(s) you will use:  
   Python will be my language of choice
2. Operating system(s) or platform(s) you will use:  
   Arch Linux
3. Database Management System you will use:  
   may not be necessary for this project but if necessary, mysql
4. Estimated number of hours for the following:
   * 1. Planning and design: 4
     2. Development: 40
     3. Documentation: 3
     4. Total: 47
5. Projected completion date:  
   march 15 2024

**IMPLEMENTATION and EVALUATION:**

1. Describe how you will approach the execution of your project.

First step to executing the project will be to plan out exactly what sort of trends to search for in the data set. Frequency reporting(X purchase most often made on Y day) being one example. Decide on what python libraries would be useful for both the machine learning aspect and potential the data representation as well. Finally begin coding, using an terative approach.

**X This project does not involve human subjects research and is exempt from WGU IRB review.**

**STUDENT’S SIGNATURE**

**\_\_\_\_\_\_\_\_\_\_\_\_\_David Alexander Mitchell\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

By signing and submitting this form, you acknowledge that any costs associated with the development and execution of the application will be your (the student's) responsibility.

**INSTRUCTOR’S SIGNATURE:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**INSTRUCTOR APPROVAL DATE:**