**Software Version Control (10 points)**

o 2 pts Repository created on GitHub.

o 3 pts Files frequently committed to repository

o 2 pts Commit messages with appropriate level of detail included.

o 3 pts Repository organized, and relevant information and project files included.

**Data Collection and Preparation (10 points)**

o 5 pts Data collected from CSV files, APIs, or databases by using Python or a Python library.

o 5 pts Data cleaned and prepared for the application or analysis by using Python or a Python library.

**Machine Learning (40 points)**

o 5 pts Jupyter notebook, Google Colab notebook, or Amazon SageMaker Studio notebook created to prepare training and testing datasets.

o **5 pts** One or more machine learning models created.

o **5 pts** Models fit to the training data.

o **10 pts** Trained models evaluated by using the testing data. Calculations, metrics, or visualizations that are needed to evaluate the performance included.

o **3 pts** Predictions shown by using a sample of new data. Predictions compared if more than one model was used.

o **2 pts** PNG images of your visualizations saved to distribute to the class and instructional team and to include in your presentation and the README.md file for your repo.

o **10 pts** One new machine learning library, machine learning model, or evaluation metric used that the class hasn't already covered.

**Documentation (15 points)**

o 5 pts Code is well commented with concise, relevant notes.

o 2 pts GitHub README.md file includes a concise project overview. (2 points)

o 3 pts GitHub README.md file includes detailed usage and installation instructions.

o 5 pts GitHub README.md file includes either examples of the application or the results and summary of the analysis.

**Presentation (25 points)**

Each project group will prepare a formal 10-minute presentation that includes the following:

o 5 pts An executive summary of the project and project goals.

o Explain how this project relates to fintech and machine learning.

o 5 pts The selected model.

o Describe the machine learning model that your group selected and why.

o 3 pts The data preparation and model training process.

o Describe the source of your data and why you chose it for your project.

o Describe the collection, cleanup, and preparation process.

o Describe the training process.

o 5 pts The approach that your group took to achieve the project goals.

o Include any relevant code or demonstrations of the machine learning model.

o Describe the techniques that you used to evaluate the performance of the model.

o Discuss any unanticipated insights or problems that arose and how you resolved them.

o 5 pts The results and conclusions from the machine learning model or application.

o Include relevant images or examples to support your work.

o If the project goal wasn’t achieved, share the issues and what the group tried for resolving them.

o 5 pts Next steps.

o Take a moment to discuss the potential next steps for the project.

o Discuss any additional questions that you’d explore if you had more time. Specifically, if you had additional weeks to work on your project, what would you research next?