FinTech Unit 11 Classification Homework Grading Rubric

Criteria	Ratings			
Resampling • Data Oversampled with Naive Random Oversampler and SMOTE algorithms. • Data Undersampled with Cluster Centroids algorithm. • Data Over and Undersampled with combination of SMOTEENN algorithm. **Classification Analysis** • Best Balance accuracy score determined. • Best Recall score determined. • Best Geometric mean score determined.	**35 Points Mastery** • Completed 6 out of 6 requirements • Code runs without error and produces the assigned results • Code accounts for all possible scenario • Code is free of bugs	**34 > 28 Points Approaching Mastery** • Completed 4 out of 6 of requirements • Code runs without error • Code produces results as expected 80% of the time	**28 > 23 Points Progressing** • Completed fewer than 2 out of 6 requirements • Code runs without error • Code produces results, but not necessarily the correct results	**23 > 0 Emerging** • Completed 1 or none out of the 6 requirements • No submission • Code runs with error
Ensemble Learning • Model trained using Quarterly Data. • Balance Accuracy Score calculated from *sklearn.metrics*. • Confusion Matrix printed from *sklearn.metrics*. • Classification Report generated using *imbalanced_classification_report* from *imbalanced learn*. • Feature Importance printed and sorted in descending order for balanced random forest classifier along with Feature Score **Classification Analysis** • Best Balanced Accuracy Score model determined. • Best Recall Score Model determined. • Best Geometric Mean Score determined. • Top Three Features determined.	**35 Points Mastery** • Completed 9 out of 9 requirements • Code runs without error and produces the assigned results • Code accounts for all possible scenario • Code is free of bugs	**34 > 28 Points Approaching Mastery** • Completed 6 out of 9 of requirements • Code runs without error • Code produces results as expected 80% of the time	**28 > 23 Points Progressing** • Completed 4 out of 9 requirements • Code runs without error • Code produces results, but not necessarily the correct results	**23 > 0 Emerging** • Completed 2 or none out of the 9 requirements • No submission • Code runs with error
Coding Conventions/Formatting • Appropriate header, name, short description at top of the notebook • Imports are at the top of the file, just after any headers or subheads. • Files read in from relative file path • Functions and variable names are descriptive, lowercase, with words separated by underscores • Clean code, no repetition, maintainable and	**10 Points Mastery**	**9 Points Approaching Mastery**	**8 Points Progressing**	**8 > 0 Emerging**

highly reusable code. • Appropriate code wrapping and cell sizes • Appropriate subheads as needed				
Deployment/Submission • Files submitted in personal repo • Appropriate directory structure with correct files needed to run scripts • Appropriate commit messages • Appropriate README	**10 Points Mastery**	**9 Points Approaching Mastery**	**8 Points Progressing**	**8 > 0 Emerging**
Documentation/Comments • Code is well commented with concise, relevant comments	**10 Points Mastery**	**9 Points Approaching Mastery**	**8 Points Progressing**	**8 > 0 Emerging**