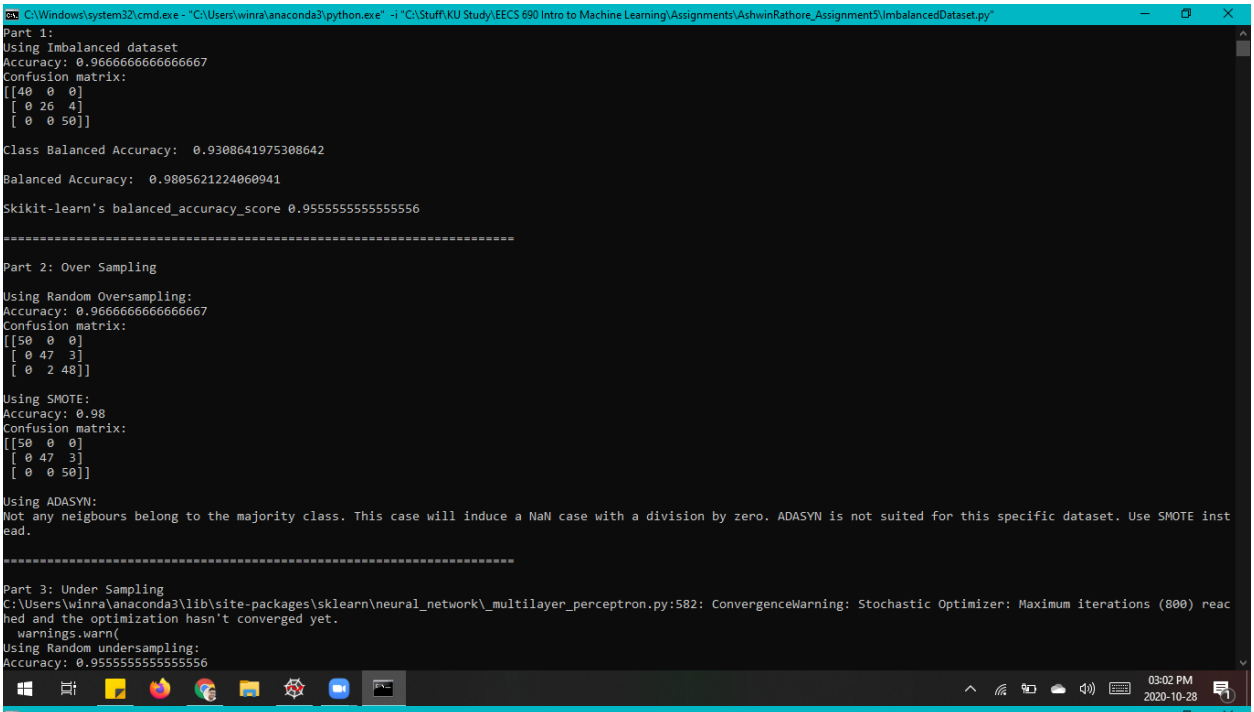
C:\Windows\system32\cmd.exe - "C:\Users\winra\anaconda3\python.exe" -i "C:\Stuff\KU Study\EECS 690 Intro to Machine Learning\Assignments\AshwinRathore_Assignment5\ImbalancedDataset.py"
Part 1:
Using Imbalanced dataset
Accuracy: 0.9666666666666667
Confusion matrix:
[[40 0 0]
[0 26 4]
[0 0 50]]
Class Balanced Accuracy: 0.9308641975308642
Balanced Accuracy: 0.9805621224060941
Skikit-learn's balanced_accuracy_score 0.9555555555555556
Part 2: Over Sampling
Using Random Oversampling:
Accuracy: 0.9666666666666667
Confusion matrix:
[[50 0 0]
[0 47 3]
[0 2 48]]
Using SMOTE:
Accuracy: 0.98
Confusion matrix:
[[50 0 0]
[0 47 3]
[0 0 50]]
Using ADASYN:
Not any neigbours belong to the majority class. This case will induce a NaN case with a division by zero. ADASYN is not suited for this specific dataset. Use SMOTE inst
ead.
Part 3: Under Sampling
C:\Users\winra\anaconda3\lib\site-packages\sklearn\neural_network_multilayer_perceptron.py:582: ConvergenceWarning: Stochastic Optimizer: Maximum iterations (800) reac
hed and the optimization hasn't converged yet.
warnings.warn(
Using Random undersampling:
Accuracy: 0.9555555555555556
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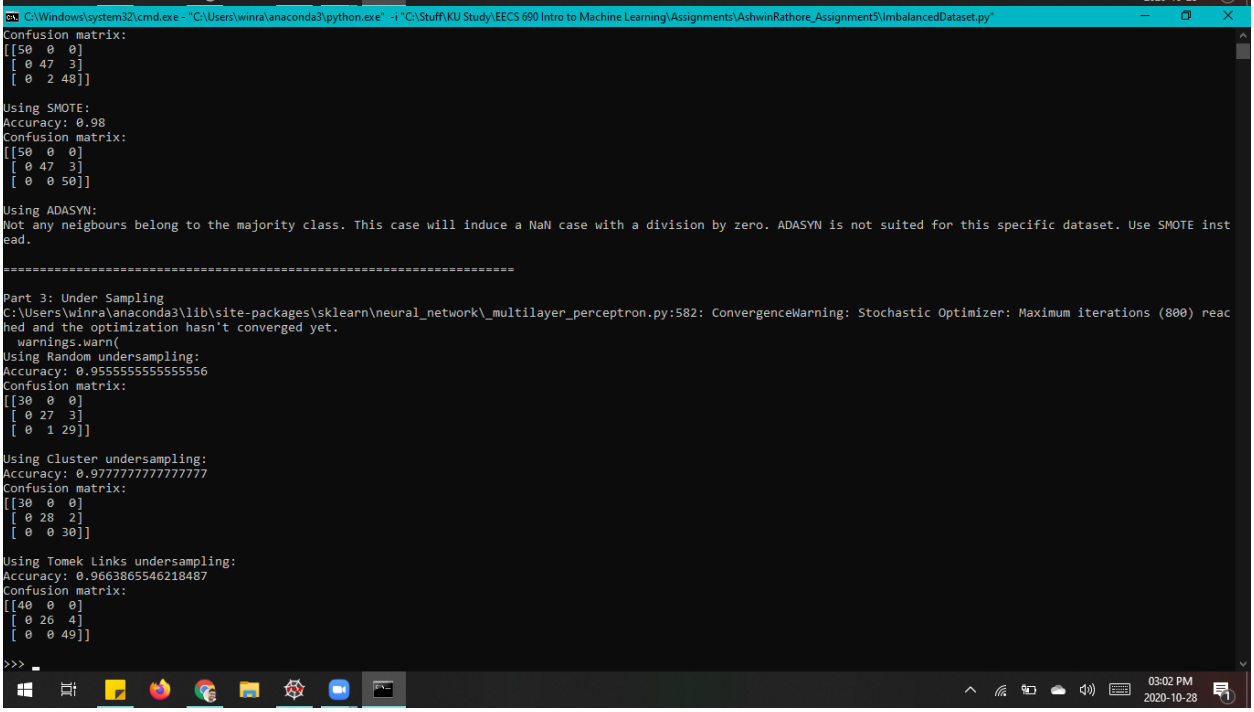
C:\Windows\system32\cmd.exe - "C:\Users\winra\anaconda3\python.exe" -i "C:\Stuff\KU Study\EECS 690 Intro to Machine Learning\Assignments\AshwinRathore_Assignment5\ImbalancedDataset.py"
Confusion matrix:
[[50 0 0]
[0 47 3]
[0 2 48]]
Using SMOTE:
Accuracy: 0.98
Confusion matrix:
[[50 0 0]
[0 47 3]
[0 0 50]]
Using ADASYN:
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Part 3: Under Sampling
C:\Users\winra\anaconda3\lib\site-packages\sklearn\neural_network_multilayer_perceptron.py:582: ConvergenceWarning: Stochastic Optimizer: Maximum iterations (800) reac
hed and the optimization hasn't converged yet.
warnings.warn(
Using Random undersampling:
Accuracy: 0.9555555555555556
Confusion matrix:
[[30 0 0]
[0 27 3]
[0 1 29]]
Using Cluster undersampling:
Accuracy: 0.9777777777777777
Confusion matrix:
[[30 0 0]
[0 28 2]
[0 0 30]]
Using Tomek Links undersampling:
Accuracy: 0.9663865546218487
Confusion matrix:
[[40 0 0]
[0 26 4]
[0 0 49]]
>>>
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2020-10-28