ECE 657 Final Project submission file using Instructions:

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Files:

1. PDF file of Final Report
2. Excel file after XGBoost Feature Extraction Process (I attached this because extract features process took about 2 hours. With this excel file, testing would be easier)
3. ECE 657 Approach 1 CNN (.py)
4. ECE 657 Approach 1 CNN (.html)
5. ECE 657 Approach 2 XGBoost (.py)
6. ECE 657 Approach 2 XGBoost (.html)
7. ECE 657 multi-Label Evaluation Implementaion (.py)
8. ECE 657 multi-Label Evaluation Implementaion (.html)
9. ECE 657 Overall EDA (.py)
10. ECE 657 Overall EDA (.html)
11. ECE 657 SIFT feature extraction (.py)
12. ECE 657 SIFT feature extraction (.html)
13. Instruction

I attach both .py and .html file for your convenient. Without running code to have a look implementation result can easily drag .html file into browser. Using .py file to run the code.

Data Line: <https://www.kaggle.com/c/planet-understanding-the-amazon-from-space/data>

Reviewing order if needed:

EDA -> CNN -> XGBoost -> Evaluation -> SIFT

Note: SIFT is a failed but valuable attempt, I attached this since I used some of the results in paper analysis.

Platform: Python

Libraries:

numpy, pandas, seaborn, tqdm, opencv, spicy, counter and time

keras under tensorflow

XGBClassifier, OneVsRestClassifier.