PROJECT TITLE: Hummingbird Classification

PROJECT SUMMARY (Brief description of the goal, key analysis plan, key data feature- especially if the data is complex)

The purpose of this project is to build a hummingbird species classification model. During this project I will collect hummingbird images, create image pre-processing code for the data set, create a binary (male/female) bird classifier, create a species classifier, and use the classifier to predict future bird images.

MILESTONES (Bullet point STEPs in your project. You can tag “DONE” for things are done)

Project Timeline:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Task Week | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Initial Project Proposal | | |  |  |  |  |  |  |  |  |
| Collect/classify photos from the web and my camera | | |  |  |  |  |  |  |  |  |
| Build data cleaning / hummingbird image processing tool | | |  |  |  |  |  |  |  |  |
| Create binary bird finder classification model | | |  |  |  |  |  |  |  |  |
| Create multi-categorical species classification model | | |  |  |  |  |  |  |  |  |
| Draft Final paper / GitHub repository / Kaggle uploads | | |  |  |  |  |  |  |  |  |
|  | | | | | | | | | | |
|  |  | Done/In-progress |  | Overdue | | |  | Planned | | |

PROPOSED ‘TO DO’ FROM THE LAST WEEK (Copy & Paste from your previous week’s TO DO)

1. Create a kernel in my Kaggle dataset with a classification model for my current species. -complete

THIS WEEK’S PROGRESS (Give bullet points and briefly explain what you accomplished or dealt with some of the milestones during the week)

1. The multi-classification model created for the hummingbird set has been uploaded [3] using the dataset [2] uploaded last week. It was 96% accurate at classifying my test images for both the subdivided images from my hummingbird training set and for the extra/separate – video test that I uploaded.

ISSUES AND DISCUSSION (Bring up any difficulties and things to discuss. Also, send me a reminder if you want to discuss sooner)

No issues to discuss, still feel slightly behind and will need to stay focused on cleanup of code and presentation of information to complete everything before the end of the course.

TO DO (Give bullet points and briefly explain your plans for the next week)

We are coming down to the finish line so I will just list all of the things that need complete:

1. Straighten up, organize, and complete my GitHub page[1].
2. Cleanup my code, upload cleaned code to GitHub[1].
3. Create final presentation.

RESOURCE (Optional: list resource or links you want to share with me)

[1] <https://github.com/amandakkimball/Hummingbird-Data-Collection-Classification>

[2] <https://www.kaggle.com/akimball002/hummingbirds-at-my-feeders>

[3] <https://www.kaggle.com/akimball002/cnn-hummingbird-speciesgender-image-classification>