To run this program:

If you are familiar with PipEnv run

Type: “Pipenv shell”

Install dependencies from the pipfile

If unfamiliar with pipenv:

install the dependencies from the requirements.txt

Then CD into Golf\_Pro

In the file “run\_model.py” select the file you would like to run from the Raw\_Video folder

And set the variable file\_name equal to the name of the MP4.

Then type either the command

“pipenv run run\_model.py”

Or

“python run run\_model.py”

Files and What they Do:

Create\_csv.py : Is used to create a blank CSV with the correct 134 features.

data\_collection.py : Specify a video file and the output csv. The program will extract data for all 134 features frame by frame and export them to the specified CSV.

model\_training.py: Trains new models on specified data.

run\_model: Used to visualize the key point tracking, and to see the probability of a classification for a golfer.

Models folder: Contains the linear regression, gradient boosted, ridge classifier, and random forest pre-trained models which can be used in the run\_model.py file.

Calculate\_angle: Unused. For future work.

df\_plotting.ipynb : Jupiter notebook for plotting and data exploration.