**How to Analyze Custom Vision Service’s (CVS) Prediction Result**

**Objective**: Congratulations! You have successfully run ‘process\_data.py’ script and produced *prediction\_result.csv* and *testing\_car.csv* Now it is time to compare the result against the original dataset’s labels. To do so, we need to use ‘data\_analysis.py,’ which compares the produced result against the original dataset to discover whether the two dataset match.

**Location**: Avanade – AI Incubator – FNOL – Image\_Classification – python\_scripts – data\_analysis.py

**Steps**:

1. Provide all requirements and directory paths

* Project\_id
  + Project\_id can be found in your Custom Vision setting page.
* Training\_key
  + Training\_key can also be found in your Custom Vision setting page
* Testing\_car\_df\_path
  + Provide the file path to testing\_car.csv, which is a product of process\_data.py script
* Prediction\_result\_df\_path
  + Provide the file path to prediction\_result.csv, which is also a product of process\_data.py script
* Threshold
  + The percentage dictates when to classify a classifier as yes or no. Default is set to 75%, which means if a prediction goes pass 75%, it will be considered as ‘yes’

1. Run Script
   * As you run the script, a question will be prompted in the console asking user whether to analyze ‘custom\_vision’ or ‘custom\_model.’ Please type ‘custom\_vision’ if you are trying to produce the analysis of CVS data. The other option is reserved for analyzing custom model.



1. Output – this script output two csv files in the same folder as where script runs
   * **result\_df.csv**
     1. This is the result of comparing prediction\_result.csv with testing\_data.csv. If they match, it becomes TRUE. Otherwise, it is FALSE.

The result\_df.csv calculates accuracy of each classifier based on test data.

* + **performance\_df.csv**
    1. This file provides further breakdown of data by providing each precision and recall value.