

# Applied Machine Learning

## Lab 4 – Working with Image Data

### Overview

In this lab, you will use Python to work with image data.

### What You'll Need

To complete this lab, you will need the following:

- An Azure ML account
- The files for this lab

**Note:** To set up the required environment for the lab, follow the instructions in the [Setup Guide](#) for this course.

### Exploring Image Data

In this exercise, you will use a variety of techniques to explore, manipulate, and analyze images.

#### Upload a Jupyter Notebook

1. Browse to <https://studio.azureml.net> and sign in using the Microsoft account associated with your free Azure ML account.
2. If the **Welcome** page is displayed, close it by clicking the **OK** icon (which looks like a checkmark). Then, if the **New** page (containing a collection of Microsoft samples) is displayed, close it by clicking the **Close** icon (which looks like an X).
3. In Azure ML Studio, click **NEW**; and in the **NEW** dialog box, in the **NOTEBOOK** tab, click **Upload**. Then in the **Upload a new notebook** dialog box, browse to select the **ImageAnalysis.ipynb** file from the folder where you extracted the lab files on your local computer. Enter the following details, and then click the ✓ icon.
  - **Enter a name for the new notebook:** ImageAnalysis
  - **Select a language for the new notebook:** Python 2
4. Wait for the upload of the notebook to complete, then click **OK** on the status bar at the bottom of the Azure ML Studio page.

#### Explore Image Data

1. In Azure ML Studio, on the Notebooks tab, open the **ImageAnalysis** notebook you uploaded in the previous procedure.
2. Follow the instructions in the notebook to work with the image data.

3. When you have completed all of the coding tasks in the notebook, save your changes and then close and halt the notebook.

## Summary

In this lab, you have used Python in a Jupyter notebook to work with image data.