

## Exercise 2

Due: Friday, May 4, 2018

### Note:

- Submit your exercises by pushing them to your Github account/repositories
- Use Python
- Use PyCharm or Jupyter Notebook as your choice
- Use OpenCV or Scikit-image as your choice
- Send me an email if you have any difficulty in completing the exercise

1. Download the Iris flower data set ([https://en.wikipedia.org/wiki/Iris\\_flower\\_data\\_set](https://en.wikipedia.org/wiki/Iris_flower_data_set))
2. Write program to complete the following works:
  - Visualize the dataset
  - Build a decision tree classifier to classify this dataset
  - Modify parameters/hyper-parameters to get the best result
3. Take a break
4. Write the program to do the following works:
  - Build a SVM classifier to classify this dataset
  - Modify parameters/hyper-parameters to get the best result
5. What's the trade-off between bias and variance?
6. What is the difference between supervised and unsupervised machine learning?
7. How is KNN different from k-means clustering?