INFO 7390 Assignment 3 – Deploying your Data science models

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- Submit an executive report (in MS Word) with your detailed analysis, explanation and interpretation of your analysis
- This exercise involves design of multiple components. Put together a design document to discuss your key design decisions and workflows.
- Deadline: Midnight – 8/3/2017
- You should include
    - One report summarizing all problems in WORD format
    - Share your data files and code through github with analyticsneu@gmail.com
- If you make assumptions, clearly state that in your report
- Include a slide (pie chart) with bullet points on contributions from each team member

Preparation

Try these tutorials before starting the assignment

- http://gallery.cortanaanalytics.com/Experiment/Tutorial-for-Data-Scientists-3
- http://gallery.cortanaanalytics.com/Notebook/Tutorial-on-Azure-Machine-Learning-Notebook-1
- Classification: http://gallery.cortanaanalytics.com/Experiment/Tutorial-Building-a-classification-model-in-Azure-ML-8
- Regression : http://gallery.cortanaanalytics.com/Experiment/Regression-Demand-estimation-4
- http://gallery.cortanaanalytics.com/Notebook/Tutorial-on-Azure-Machine-Learning-Notebook-1
- http://gallery.cortanaanalytics.com/Notebook/Deployment-of-AzureML-Web-Services-from-Python-Notebooks-4

Assignment

- Now that you have completed the midterm, you have 3 models for regression and 3 models for classification. The goal of this assignment is to deploy your models into production using a machine learning as a service platform. We have chosen Azure ML for this.
- Deploy the 3 models for regression and 3 models for classification using Azure ML and create 6 REST APIs. You can use inbuilt algorithms or use your own Python/R code in blocks. You could also choose to train models you built for the midterm outside and just use Azure ML to deploy the trained algorithms. You could also choose to do the entire training from scratch using Azure ML
- Build a Web app using any programming language and illustrate how to use these REST Apis
- Deploy the web app on a cloud environment
- We should be able to invoke one of the six REST APIs deployed using Azure ML through your web app deployed on a cloud environment using a browser.
- Provide test cases so that we can replicate the test cases.
- Provide adequate documentation and source code so that we can replicate your setup.