Stats For Data Science Outline

Week 1

1. Day 1:
    - Slides: 01_Introduction_to_Statistics.pdf
    - Installing Anaconda
2. Day 2:
    - Slides: 02_What_is_Data.pdf
    - Notebook: 01_Exploratory_Data_Analysis_Part_1_Single_Variable.ipynb
    - Exercise: 01_Single-Variable_EDA.txt

Week 2

1. Day 1:
    - Notebook: 02_Exploratory_Data_Analysis-Part_2_Two_Variable.ipynb
    - Exercise: 02_Multi-Variable_EDA.txt
2. Day 2:
    - Review Exercise 01
    - Slides: 03_Probability_Part_1_Basics_to_Conditional.pdf

Week 3

1. Day 1:
    - Review Exercise 02
    - Slides: 04_Probability_Part_2_Random_Variables.pdf
    - Notebook: 03_Probability_Calculations_Part_1_Binomial_Normal.ipynb
    - Exercise: 03_Probability.txt (Binomial and Normal Parts)
2. Day 2:
    - Slides: 05_Probability_Part_3_Poisson.pdf
    - Notebook: 04_Probability_Calculations_Part_2_Poisson.ipynb
    - Exercise: 03_Probability.txt (Poisson and Exponential Parts)

Week 4

1. Day 1:

- Review Exercise 03
- Slides: estimation_01.pdf (contained in slides_tex folder)
- Demonstration: demonstrations/Confidence_Interval_Demo.ipynb
- Notebook: Estimation_Part_1.ipynb
- Exercise: 04_Confidence_Intervals.txt

2. Day 2:

- Slides: estimation_02.pdf (contained in slides_tex folder)
- Demonstration: demonstrations/Bootstrap_Confidence_Interval_Demo.ipynb
- Notebook: Estimation_Part_2.ipynb
- Exercise: 05_Bootstrap_Confidence_Intervals.txt

Week 5

1. Day 1:

- Review Exercises 04 and 05
- Slides: Hypothesis_Testing_01_Introduction.pdf
- Slides: Hypothesis_Testing_02_p_values.pdf
- Notebook: Hypothesis_Testing_Part_1.ipynb
- Exercise: 06_Hypothesis_Testing.txt Parts 1 and 2

2. Day 2:

- Notebook: Hypothesis_Testing_Part_2_Permutation_Tests.ipynb
- Notebook: Hypothesis_Testing_Part_3_Effect_Size_and_Power.ipynb
- Exercise: 06_Hypothesis_Testing.txt Parts 3 and 4

Week 6 Linear and Logistic Regression

1. Day 1:

- Review Exercise 06
- Slides: linear_regression_01.pdf (in slides_tex folder)
- Notebook: Linear_Regression.ipynb
- Exercise: Linear Regression

2. Day 2:

- Slides: logistic_regression_01.pdf (in slides_tex folder)