Graduate Certificate in Artificial Intelligence with Machine Learning
AIGC 5002 - Machine Learning and Deep Learning
Winter 2024

Lab 2:
Linear Regression

Submission guidelines:

- For this lab, you will need to submit 1 PDF file by the end of lab time.
- After you complete all the exercises, convert your Jupyter Notebook (.ipynb) to PDF. Name the PDF as follows: firstname_lastname_LAB1.pdf
- Go to the course Blackboard → Labs folder → Lab 1 and submit the pdf.

Part 1: Follow along with the In-Lab Live Demo .

Part 2: Linear Regression in Python

1. Search the web for a dataset with one dependent and one independent variable with a linear nature in a field of your interest (Finance, gaming, healthcare, IoT, robotics, retail, etc..). (You can search Kaggle.com using phrases like “Linear regression”)
2. Download the dataset to your PC.
3. In your notebook, create a markdown cell “Importing the dataset.”
4. Create a code cell that will import the dataset to a Pandas DataFrame, as it was shown in the class demo.
5. Visualize the dataset and confirm that there is a linear relationship between the variables.
6. Split the data set to training and testing data (70:30 ratio).
7. Visualize the points in both sets.
8. Fit a linear regression model and evaluate it on the testing dataset.

Enjoy!
