DIPARTIMENTO
DI INGEGNERIA
DELL'INFORMAZIONE

UNIVERSITÀ
DEGLI STUDI
DI PADOVA

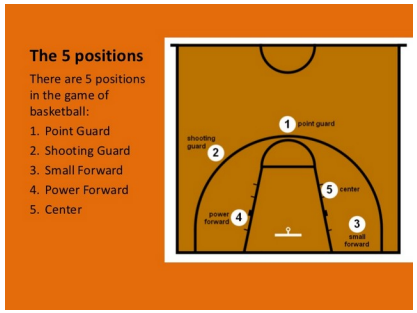
LAB 1: Linear Classification and Regression

Machine Learning 2022-23

F. Chiariotti, A.A. Deshpande

LAB 1: Linear Regression and Classification

There are 2 tasks:



Classification of NBA players' roles

Regression on house prices data

LAB 1

Classification:

- Implement the Perceptron algorithm
- Use Logistic Regression from Python libraries

Regression:

- Use Least Squares implementation in Python libraries

Complete the Notebook

- You have to complete the Jupyter notebook:
  - Classification problem (NBA roles, perceptron and logistic regression)
  - Regression task (house prices, Least Square)
- FIRST THING TO DO: you need to put your name and ID number in the notebook

You can also use your ID as a seed for random number generators

- The notebook has missing code:you need to fill in what is missing
- You must write the answer to all the questions in the notebook
- You should also include some text/comments (to explain choices or describe results)
- Feel free to add cells with text if you need to explain or describe some "non-standard" decision!
  - But do not change the input data files, they will not be submitted

The Task

- Complete the jupyter notebook
  - i.e., write the code and answer to the questions
- Check that they run properly from the beginning with the provided data (use the "*restart kernel&run all*" command)
- Save them as `surname_name_lab1.ipynb`
- Submit on elearning

Timeline

- Tue 15/11 : Homework released
- Wed 16/11: Lab 1 (rooms Te/Ue)
- Tue 29/11: Delivery deadline
- The outcome is an on-off mark (i.e., +1 for the exam mark if the homework is reasonably done)