ML Fundamentals I - ANN

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There is no submission link, Your progress will be graded along your lab work.

1 Introduction

This tutorial should help you get familiar with the basics you need for Machine Learning projects. if you are stuck in any step please contact me at Maadel@nu.edu.eg

2 EDA (Exploratory Data Analysis)

2.1 Data understanding, Data analysis, Visualization

2.1.1 Exploratory Data Analysis With Python and Pandas

- CLICK HERE FOR THE COURSE
- Initial Data Exploration • Univariate Analysis • Bivariate Analysis • Identify and Handling Duplicate and Missing Data • Correlation Analysis.
- Very simple tutorial
  - CLICK HERE FOR THE TUTORIAL
  - CLICK HERE FOR Excercise with the Dataset

2.1.2 Exploratory Data Analysis for Machine Learning

- CLICK HERE FOR THE COURSE
- Retrieving and cleaning Data • Exploratiry Data Analysis and Feature Engineering.

2.1.3 Exploratory Data Analysis with Seaborn

- CLICK HERE FOR THE COURSE

- Introduction and Importing Data • Separate Target from Features • Diagnosis Distribution Visualization • Visualizing Standardized Data with Seaborn • Violin Plots and Box Plots • Use Joint Plots for Feature Comparison • Observing Distributions and their Variance with Swarm Plots • Obtaining all Pairwise Correlations

2.1.4 Handle missing values, non-numeric values, data leakage, and more.

- CLICK HERE FOR THE COURSE
- Missing Values • Categorical Variables • Piplines • Cross-Validation • XGBoost • Data Leakage.