Intro to Data Analysis with Python

Daniel García Hernández

April 4, 2020

This is a basic, introductory course to Data Analysis with Python and pandas. Enjoy!

1. **Algebra basics with NumPy**

   - Why to learn Algebra
   - Scalars, vectors, matrices, tensors
   - Intro to NumPy
   - Operations with vectors and matrices

2. **Intro to pandas**

   - Why to learn Pandas
   - Introduction to pandas
   - Series and DataFrames
   - Slicing, filtering, mapping
   - Practical uses of Pandas

3. **Dataframe manipulation**

   - Why to learn Dataframe manipulation
   - Rearranging dataframes
   - Reshaping dataframes
   - Join, merge, concat
   - Practical uses of dataframe manipulation

4. **Exploratory data analysis (EDA)**

   - Why to learn EDA
   - Variables and Feature engineering
   - Dealing with missing data
   - Basic data analysis

- Practical uses of EDA

5. **Data analysis case**

- Getting the data
- Massaging the data
- Analyzing the data
- Providing insights