Python for AI and Machine Learning

Lecture 01

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About Me

– Marilson Campos

- Software Architect with 20+ years of experience.
- Background in Machine Learning and Search engines
- Designing ML & Big Data systems since 2007

- Some relevant presentations
  - Hadoop Summit 2013
  - Apache Impala User Group - 2015
  - Strata 2016 – Use case @ Cloudera Booth
  - Impala spotlight – Cloudera 2016

About You

- Your current role
- Why are you taking this class?

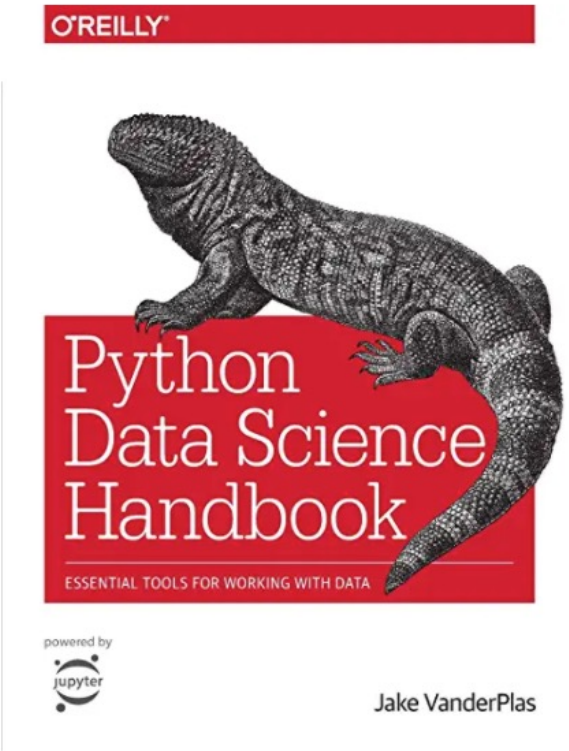
About the class

What we will cover

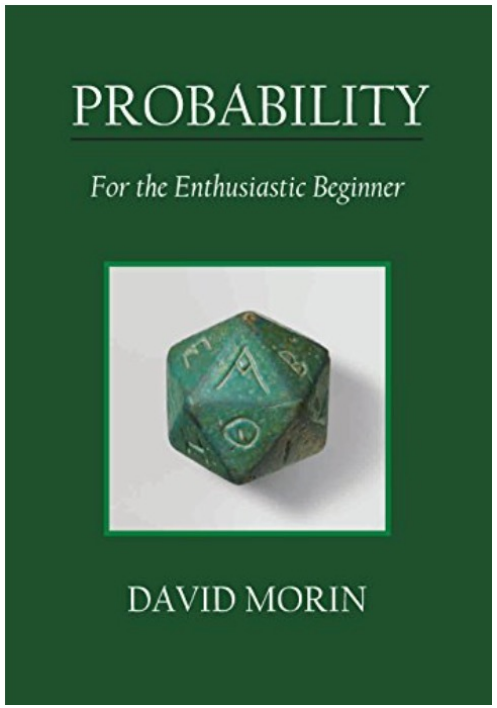
- Python language
- Commonly used Unix commands
- Use of Notebooks & Python IDE
- Foundations Combinatorics / Statistics
- Some Libraries used in Ai: NumPy, Pandas, Matplotlib
- Exploratory Data Analysis
- ML Model Building (Skitlearn)

Recommended Books

Python Data Science



Probability/Math



At the end of this class, I expect you to…

- Create python programs and know how to optimize programs.
- Create and use python notebooks.
- Use pandas to load data, do math using NumPy and plot graphics in matplotlib/searborn.
- Continue to learn.

Class Material vs The Project

- We are covering some non-trivial concepts.
  - If you miss few advanced details, don't worry too much.
    Important: If you are lost, **please stop me!** And ask for clarification.
  - I want to make the class as interactive as possible.

- Material in the class is harder than the assigments.
  - This is by design, so advanced students can also benefit from the class.

- To succeed in this class, you need to spend time witting code!

Installing Python & PyCharm

The following links will allow you install the required tools

Pycharm Edu edition
https://www.jetbrains.com/pycharm-edu/

Anaconda Navigator
https://docs.anaconda.com/anaconda/install/