
MLDS 422 - Intro to Python

Lab 1

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NORTHWESTERN
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Lab and Office Hours

- ▶ Lab - Wednesdays 11 - 12 pm
 - ▶ Weekly until the end of quarter
 - ▶ No lab during the week of Thanksgiving
- ▶ New office hours
 - ▶ Tuesdays 11 - 12 pm
- ▶ We can also schedule alternate times

Homeworks

- ▶ Due on Fridays one week after
- ▶ Submissions of Jupyter notebooks
- ▶ It's helpful to have submissions with outputs visible

Lab Structure

- ▶ Materials related to lectures and homeworks
- ▶ Q&A

Today's Lab Materials

- ▶ Setup Virtual Environment
- ▶ Code Style and Documentation
- ▶ Homework 1
 - ▶ File I/O
 - ▶ Functions and Variables

- ▶ <https://docs.conda.io/projects/conda/en/latest/user-guide/install/index.html>
- ▶ Package Management
- ▶ Environment Management

Virtual Environment

- ▶ An isolated python environment
- ▶ Libraries installed in a virtual environment are isolated from other environments and your system python
- ▶ Easier and cleaner to manage version controls

- ▶ Create a virtual environment and install packages
 - ▶ `conda create -n lab1 python=3.9`
 - ▶ `conda activate lab1`
 - ▶ `conda install jupyter`
 - ▶ `conda install matplotlib`
 - ▶ `conda install scipy numpy`
 - ▶ `conda deactivate lab1`

Conda

- ▶ https://docs.conda.io/projects/conda/en/4.6.0/_downloads/52a95608c49671267e40c689e0bc00ca/conda-cheatsheet.pdf
- ▶ `conda env list`
- ▶ `conda list -n lab1`
- ▶ `conda update -n lab1 scipy (conda update -n lab1 all)`