Tech Set Up

For Jupyter, Kaggle, & More

Reminder: If you have paid dues, please message any admin on the ACM Discord your name and email to receive an official member role

University of Iowa Computing Conference

February 25th - 26th

ACM@UIOWA

UICC 2022

IOWA
Department of Computer Science

Speakers
- John Laird
- Kristian Hammond
- Kelsey Huebner
- Casey DeRoo

Featuring
- Door Prizes
- Free Meals & Snacks
- Video & Board Games
- Social Events

Registration before February 22nd guarantees your spot in all activities and meals at the conference.

Individuals with disabilities are encouraged to attend all University of Iowa-sponsored events. If you are a person with a disability who requires a reasonable accommodation in order to participate in this program, please contact Mitchell Hermon In advance at (515) 822-5084

Join us in person or over Zoom!

For more information visit acm.org.uiowa.edu/uicc-2022

Getting Started With pip

- pip (preferred installer system) is a package management system for python
- To check if you already have pip, open terminal and execute:

  python -m pip --version (MacOS) or py -m pip --version (Windows)

- For those that don't have it installed, copy & paste this script into a python file and title it "get-pip.py"

  https://bootstrap.pypa.io/get-pip.py

- Move to the directory in your terminal to where this file exists and execute:
- https://colab.research.google.com/

  python get-pip.py (MacOS) or py get-pip.py (Windows)

For information visit: https://pip.pypa.io/en/stable/getting-started/

Getting Started With Jupyter Notebooks

- To upgrade pip:

  python -m pip install --upgrade pip (MacOS)

  Or py -m pip install --upgrade pip (Windows)

- Using pip in the terminal, execute:

  pip install notebook

- In the terminal, execute:

  jupyter notebook

- pip install --user ipykernel

For more information visit: https://jupyter.org/install

If you prefer to use Conda for installing Jupyter visit:
https://towardsdatascience.com/how-to-set-up-anaconda-and-jupyter-notebook-the-right-way-de3b7623ea4a

Getting Started With Kaggle

- Create an account here:

  https://www.kaggle.com

- We will be walking through the "Titanic" Kaggle exercise:

  https://www.kaggle.com/c/titanic

Getting Started With A Virtual Environment

- Create the environment
  - python -m venv <name_of_environment>
- Install Jupyter Notebooks in environment
  - python -m ipykernel install --user
    --name=<name_of_environment>
- Start the environment
  - source <name_of_environment>/bin/activate
- Can also use Jupyter Notebooks VS Code Extension
- Close environment
  - deactivate

Getting Started With Pandas

- In your Jupyter file, you can run commands to install libraries
- Pandas is a commonly used library for data manipulation, visualization, and storage
- Install Pandas by running the following script in your Jupyter file:

  pip install Pandas

Code

```
In [3]: pip install Pandas
```

```
Collecting Pandas
  Downloading pandas-1.4.0-cp39-cp39-macosx_11_0_arm64.whl (10.5 MB)
     |████████████████████████████| 10.5 MB 2.7 MB/s
Collecting numpy>=1.20.0
  Downloading numpy-1.22.1-cp39-cp39-macosx_11_0_arm64.whl (12.8 MB)
     |████████████████████████████| 12.8 MB 5.4 MB/s
Collecting pytz>=2020.1
  Using cached pytz-2021.3-py2.py3-none-any.whl (503 kB)
Requirement already satisfied: python-dateutil>=2.8.1 in /Users/raymond/miniforge3/lib/python3.9/site-packages (from
Pandas) (2.8.2)
Requirement already satisfied: six>=1.5 in /Users/raymond/miniforge3/lib/python3.9/site-packages (from python-dateuti
l>=2.8.1->Pandas) (1.16.0)
Installing collected packages: pytz, numpy, Pandas
Successfully installed Pandas-1.4.0 numpy-1.22.1 pytz-2021.3
Note: you may need to restart the kernel to use updated packages.
```

```
In [5]: import pandas as pd
```