Jupyter Notebooks

ICPSR

Thomas Murphy, Director, IT
Harsha Ummerpillai, Solutions Architect, Lead

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ICPSR

➢ Research data management organization over 55 years

➢ Hosts archives for various national agencies

➢ Globally Recognized Curation Methodologies

➢ Enabling secondary use of research data

➢ Research and development of new data management technologies

Our Organization

➢ Primary Research Staff

➢ Professional curation staff

➢ Data Librarians and Archivists

➢ Web and Social Media content designers

➢ Software Solution Architects, designers and developers

➢ Cloud and On-Premise Infrastructure Staff

Interactive Python > Jupyter

➢ Website : http://jupyter.org/

➢ IPython created in 2001 as an interactive computing in multiple languages

➢ Jupyter is a spinoff started in 2014

The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, data visualization, machine learning, and much more.

Jupyter Lab

JupyterLab is the next-generation user interface for Project Jupyter. It offers all the familiar building blocks of the classic Jupyter Notebook (notebook, terminal, text editor, file browser, rich outputs, etc.) in a flexible and powerful user interface. Eventually, JupyterLab will replace the classic Jupyter Notebook after JupyterLab reaches 1.0.

Jupyter Hub

With JupyterHub you can create a multi-user Hub which spawns, manages, and proxies multiple instances of the single-user Jupyter notebook server.

Project Jupyter created JupyterHub to support many users. The Hub can offer notebook servers to a class of students, a corporate data science workgroup, a scientific research project, or a high performance computing group.

nbviewer & Notebook Galleries

https://nbviewer.jupyter.org/

IPython Notebook Viewer is a free web service that allows you to share static html versions of hosted notebook files. If a notebook is publicly available, by giving its url to the Viewer, you should be able to view it.

Demo

https://github.com/jakevdp/PythonDataScienceHandbook

ICPSR Use Cases

➢ Download data, documentation and live code that is ready to consume by ICPSR users.

➢ Publish Jupyter Notebook version of publications making the code, and graphics interactive.

➢ Host Jupyter Hub for member organizations. Allowing researchers to start data analysis with few clicks.

ICPSR Notebook Gallery

A sample gallery is available in GitHub

https://github.com/ICPSR/mybinder_test

What's next?

R & Python notebooks available for download

Gallery of popular articles and publications

Jupyter Hub on cloud for member organizations

Thank You

Thomas Murphy

tomurphy@umich.edu

Harsha Ummerpillai

harshau@umich.edu