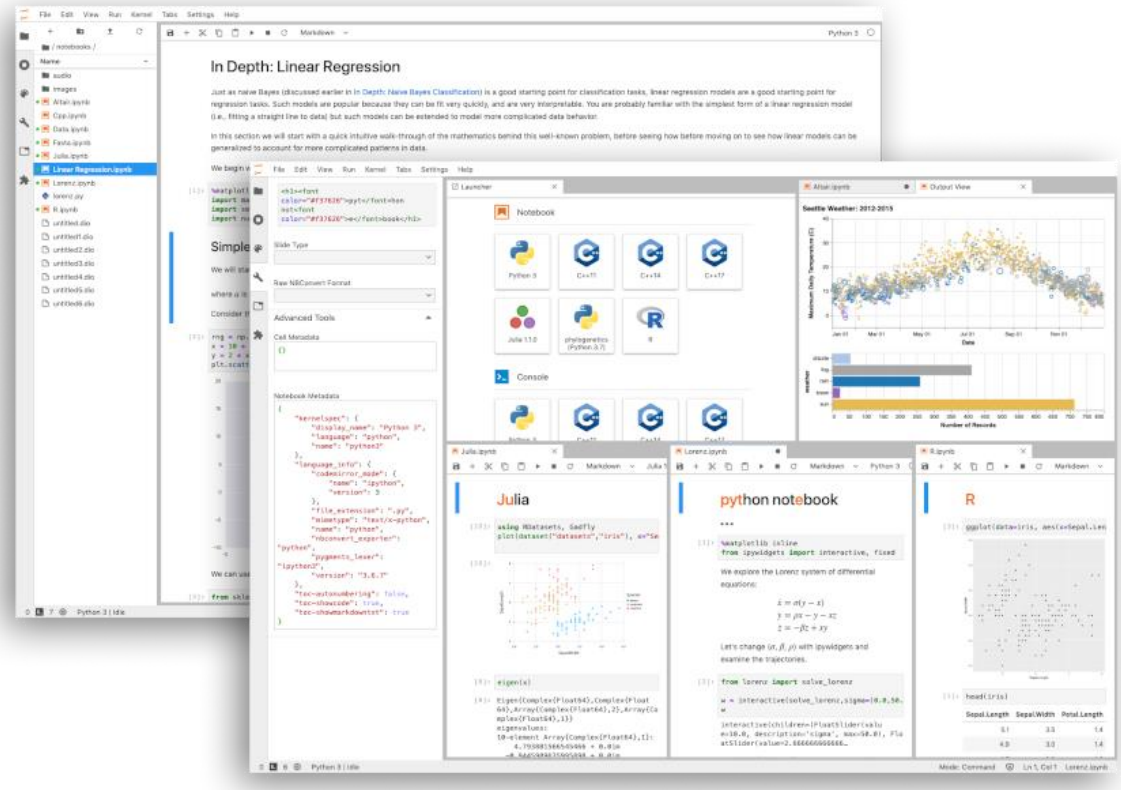
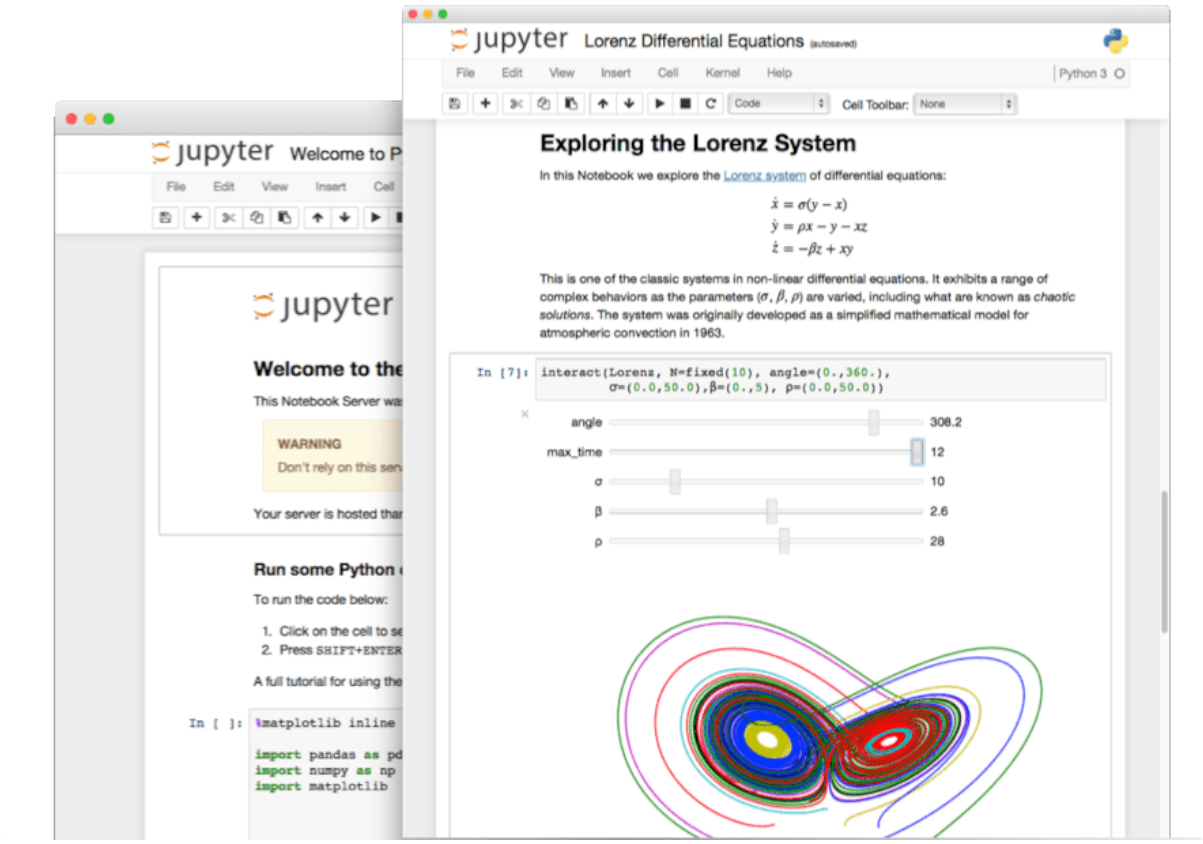
Free software, open standards, and web services for interactive computing across all programming languages



JupyterLab: A Next-Generation Notebook Interface

JupyterLab is the latest web-based interactive development environment for notebooks, code, and data. Its flexible interface allows users to configure and arrange workflows in data science, scientific computing, computational journalism, and machine learning. A modular design invites extensions to expand and enrich functionality.

Try it in your browserInstall JupyterLab



Jupyter Notebook: The Classic Notebook Interface

The Jupyter Notebook is the original web application for creating and sharing computational documents. It offers a simple, streamlined, document-centric experience.

Try it in your browserInstall the Notebook

Language of choice

Jupyter supports over 40 programming languages, including Python, R, Julia, and Scala.

Share notebooks

Notebooks can be shared with others using email, Dropbox, GitHub and the Jupyter Notebook Viewer.

Interactive output

Your code can produce rich, interactive output: HTML, images, videos, LaTeX, and custom MIME types.

Big data integration

Leverage big data tools, such as Apache Spark, from Python, R, and Scala. Explore that same data with pandas, scikit-learn, ggplot2, and TensorFlow.

A multi-user version of the notebook designed for companies, classrooms and research labs

Pluggable authentication

Manage users and authentication with PAM, OAuth or integrate with your own directory service system.

Centralized deployment

Deploy the Jupyter Notebook to thousands of users in your organization on centralized infrastructure on- or off-site.

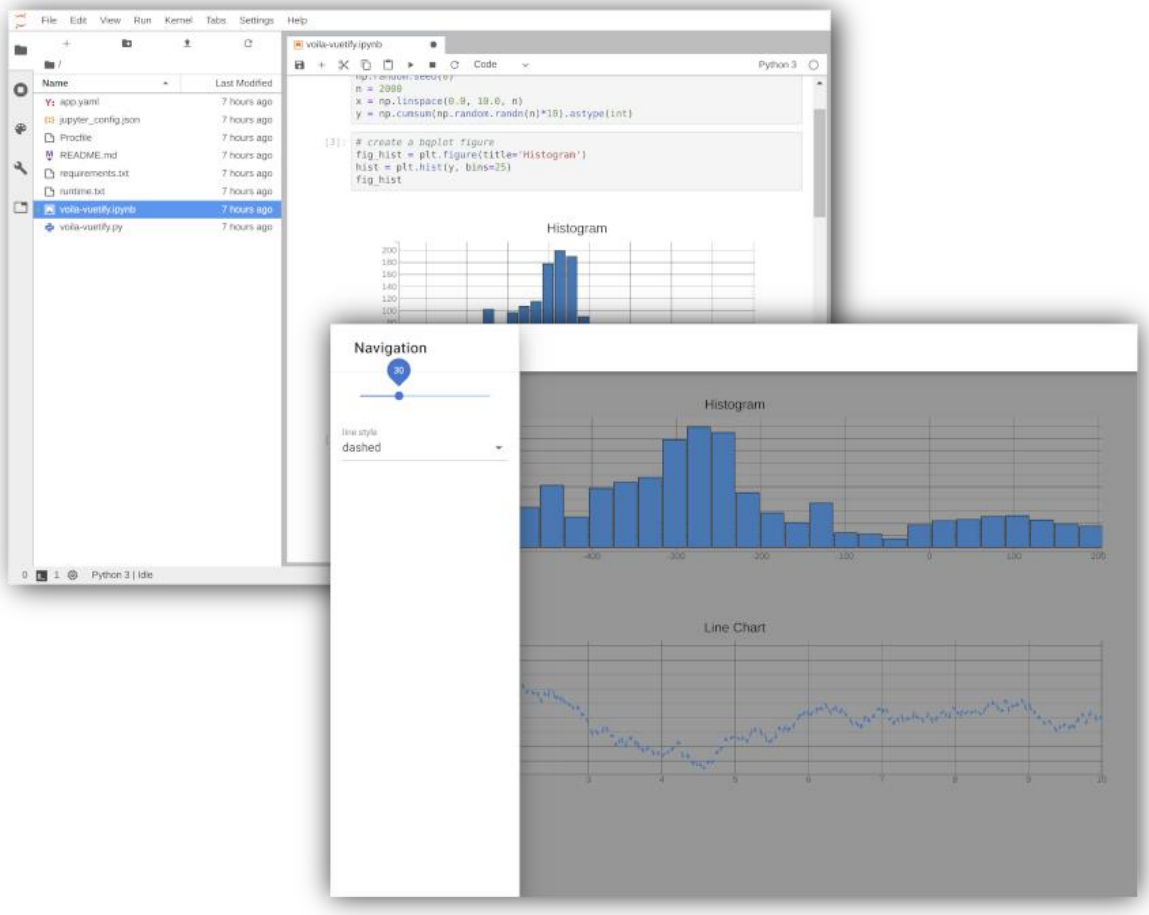
Container friendly

Use Docker and Kubernetes to scale your deployment, isolate user processes, and simplify software installation.

Code meets data

Deploy the Notebook next to your data to provide unified software management and data access within your organization.

Learn more about JupyterHub



Voilà: Share your results

Voilà helps communicate insights by transforming notebooks into secure, stand-alone web applications that you can customize and share.

Try it in your browserInstall Voilà

Currently in use at

Open Standards for Interactive Computing

Project Jupyter promotes open standards that third-party developers can leverage to build customized applications. Think HTML and CSS for interactive computing on the web.

Notebook Document Format

Jupyter Notebooks are an open document format based on JSON. They contain a complete record of the user's sessions and include code, narrative text, equations, and rich output.

Interactive Computing Protocol

The Notebook communicates with computational Kernels using the Interactive Computing Protocol, an open network protocol based on JSON data over ZMQ, and WebSockets.

The Kernel

Kernels are processes that run interactive code in a particular programming language and return output to the user. Kernels also respond to tab completion and introspection requests.

Project Jupyter

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- JupyterHub
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