

The Jupyter Notebook

Improve the transparency and replicability of your research without compromising efficiency

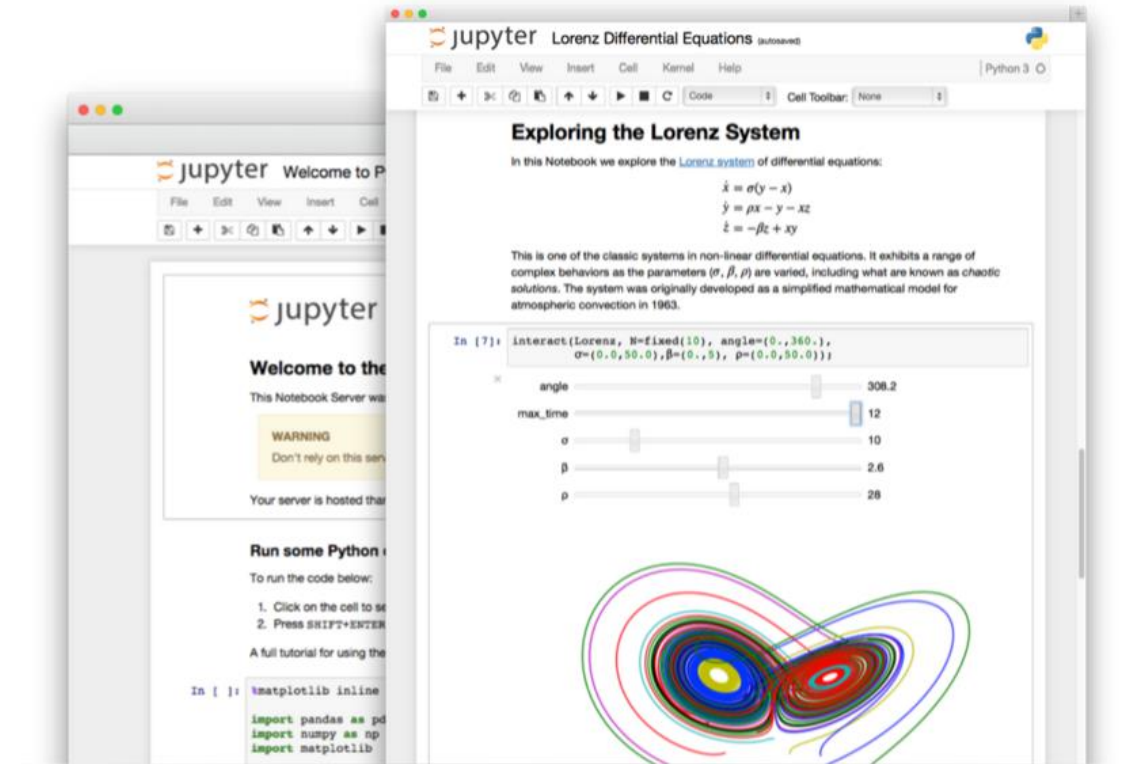
What is the Jupyter Notebook?

Open source, interactive data science and scientific computing across over 40 programming languages.

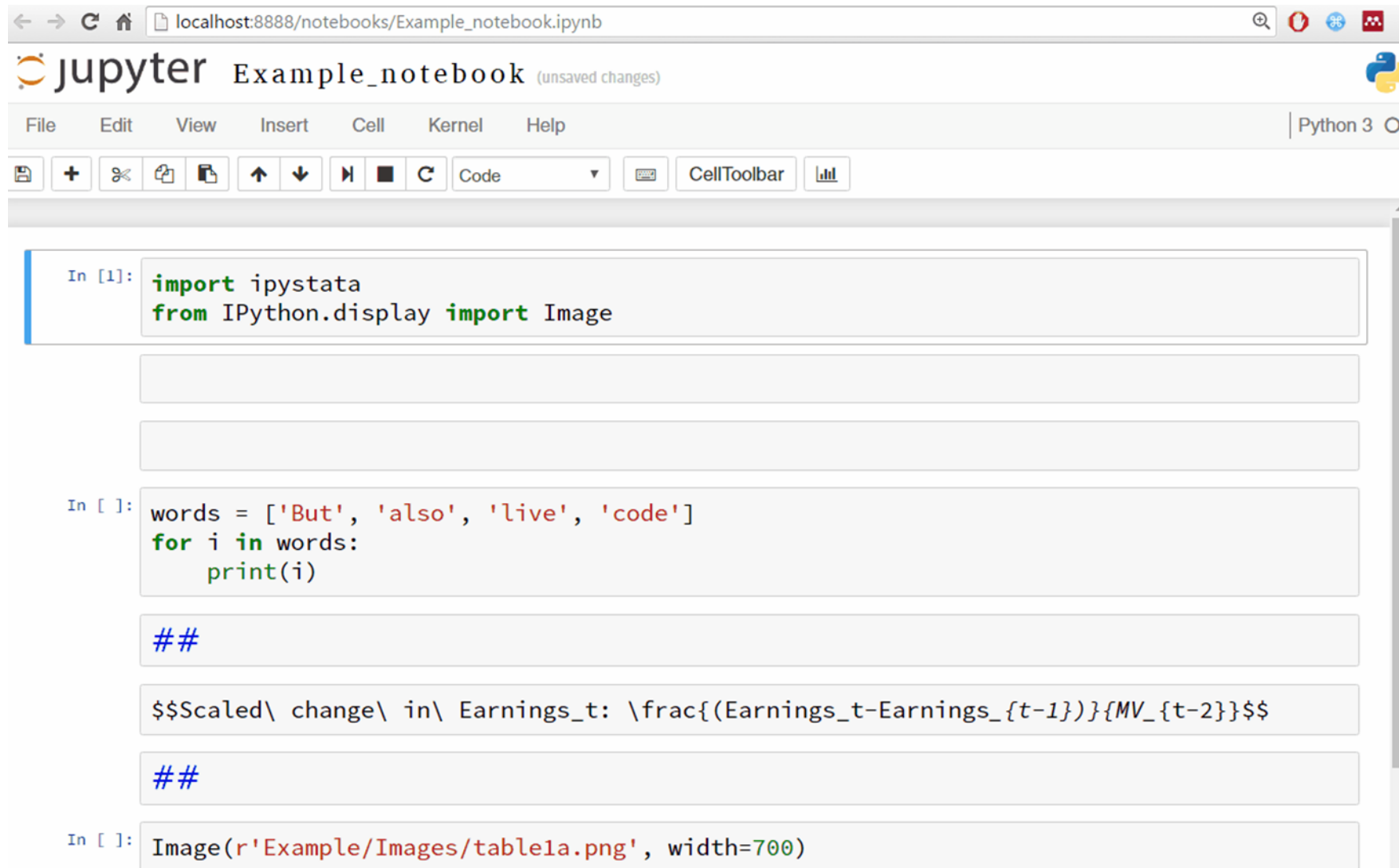


Jupyter Notebook

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



Demonstration



The screenshot shows a Jupyter Notebook interface in a web browser. The address bar indicates the URL is `localhost:8888/notebooks/Example_notebook.ipynb`. The notebook title is "Example_notebook" with a note "(unsaved changes)". The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Help) and a toolbar with icons for file operations, cell navigation, and execution. The notebook contains four code cells:

```
In [1]: import ipystata
        from IPython.display import Image

In [ ]: words = ['But', 'also', 'live', 'code']
        for i in words:
            print(i)

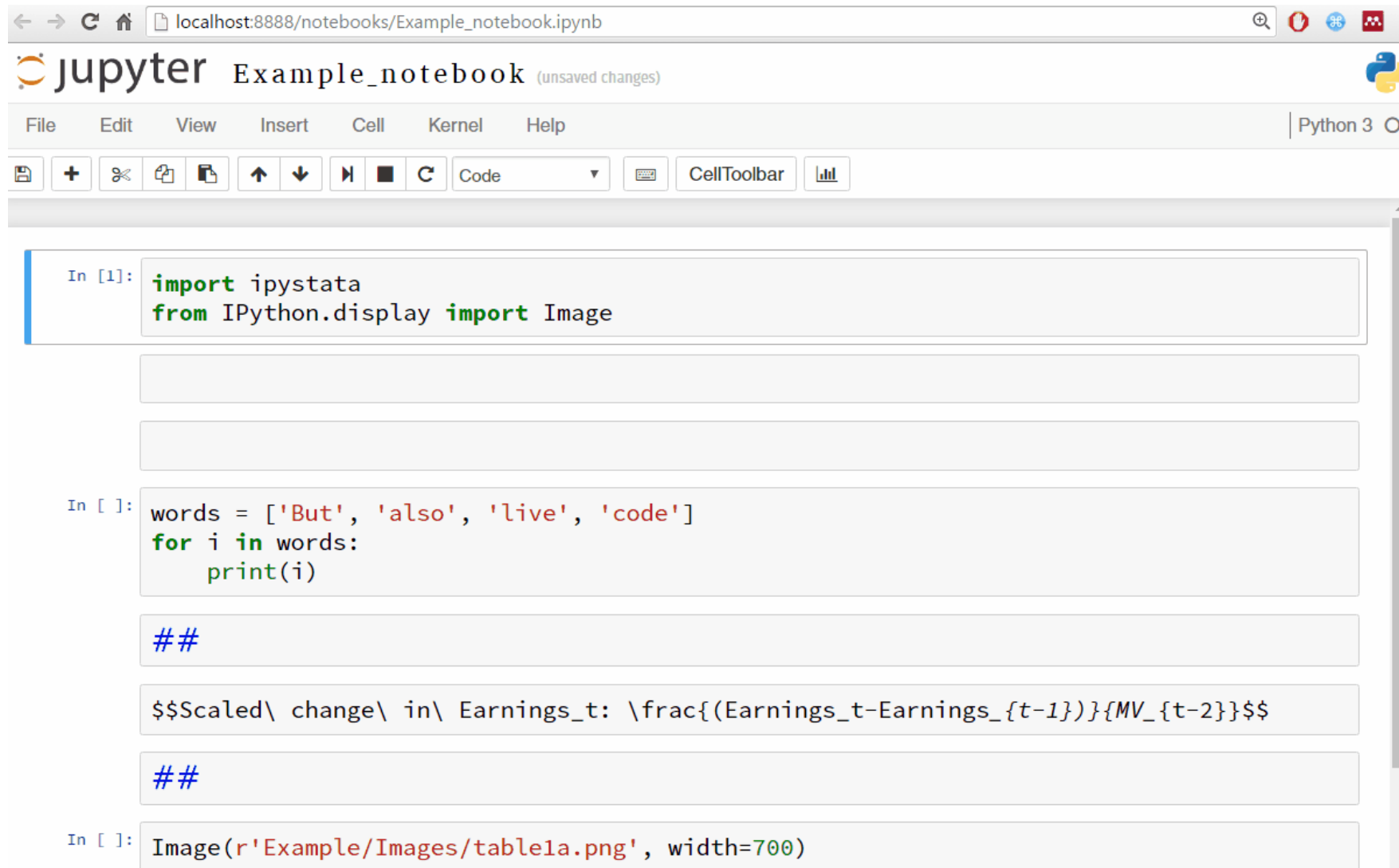
##


$$\text{Scaled change in Earnings}_t: \frac{(\text{Earnings}_t - \text{Earnings}_{t-1})}{MV_{t-2}}$$


##

In [ ]: Image(r'Example/Images/table1a.png', width=700)
```

Demonstration



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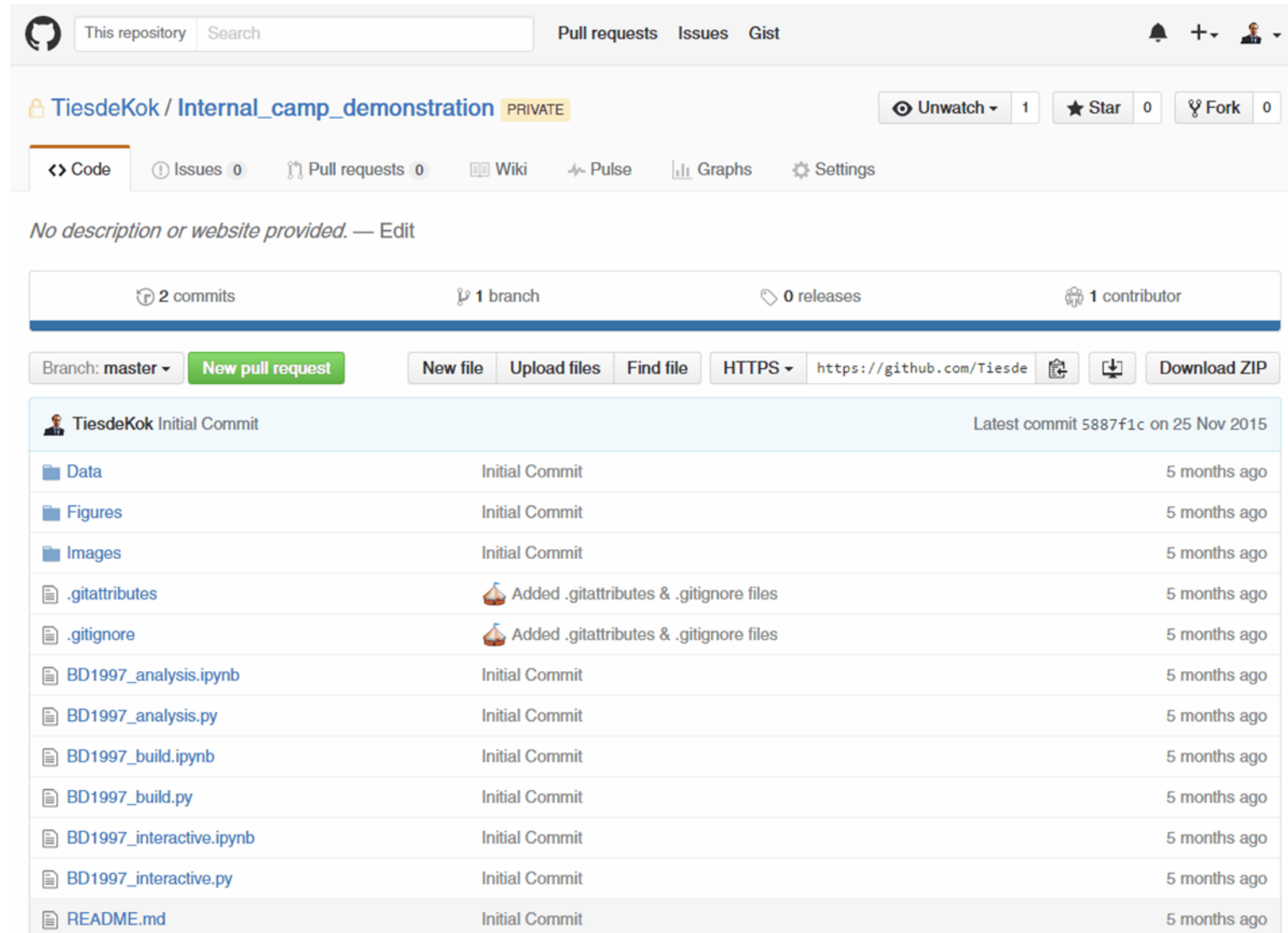
The Jupyter Notebook is language agnostic

- Supported languages:
 - Python
 - Stata (IPyStata, created and maintained by me)
 - R
 - SAS
 - MATLAB
 - And many others!
- Also, multiple languages in one Notebook!
 - For example: combine Python, Stata, and R all in one notebook.

Jupyter Notebook + Version Control

- Officially supported by GitHub

Code, results, comments, etc.
all under version control!



The screenshot shows a GitHub repository page for 'TiesdeKok / Internal_camp_demonstration'. The repository is private and has 1 watch, 0 stars, and 0 forks. It contains 2 commits, 1 branch, 0 releases, and 1 contributor. The repository is on the 'master' branch. The file list shows the following files and their commit history:

File	Commit	Time
Data	Initial Commit	5 months ago
Figures	Initial Commit	5 months ago
Images	Initial Commit	5 months ago
.gitattributes	Added .gitattributes & .gitignore files	5 months ago
.gitignore	Added .gitattributes & .gitignore files	5 months ago
BD1997_analysis.ipynb	Initial Commit	5 months ago
BD1997_analysis.py	Initial Commit	5 months ago
BD1997_build.ipynb	Initial Commit	5 months ago
BD1997_build.py	Initial Commit	5 months ago
BD1997_interactive.ipynb	Initial Commit	5 months ago
BD1997_interactive.py	Initial Commit	5 months ago
README.md	Initial Commit	5 months ago

Jupyter Notebook + Version Control

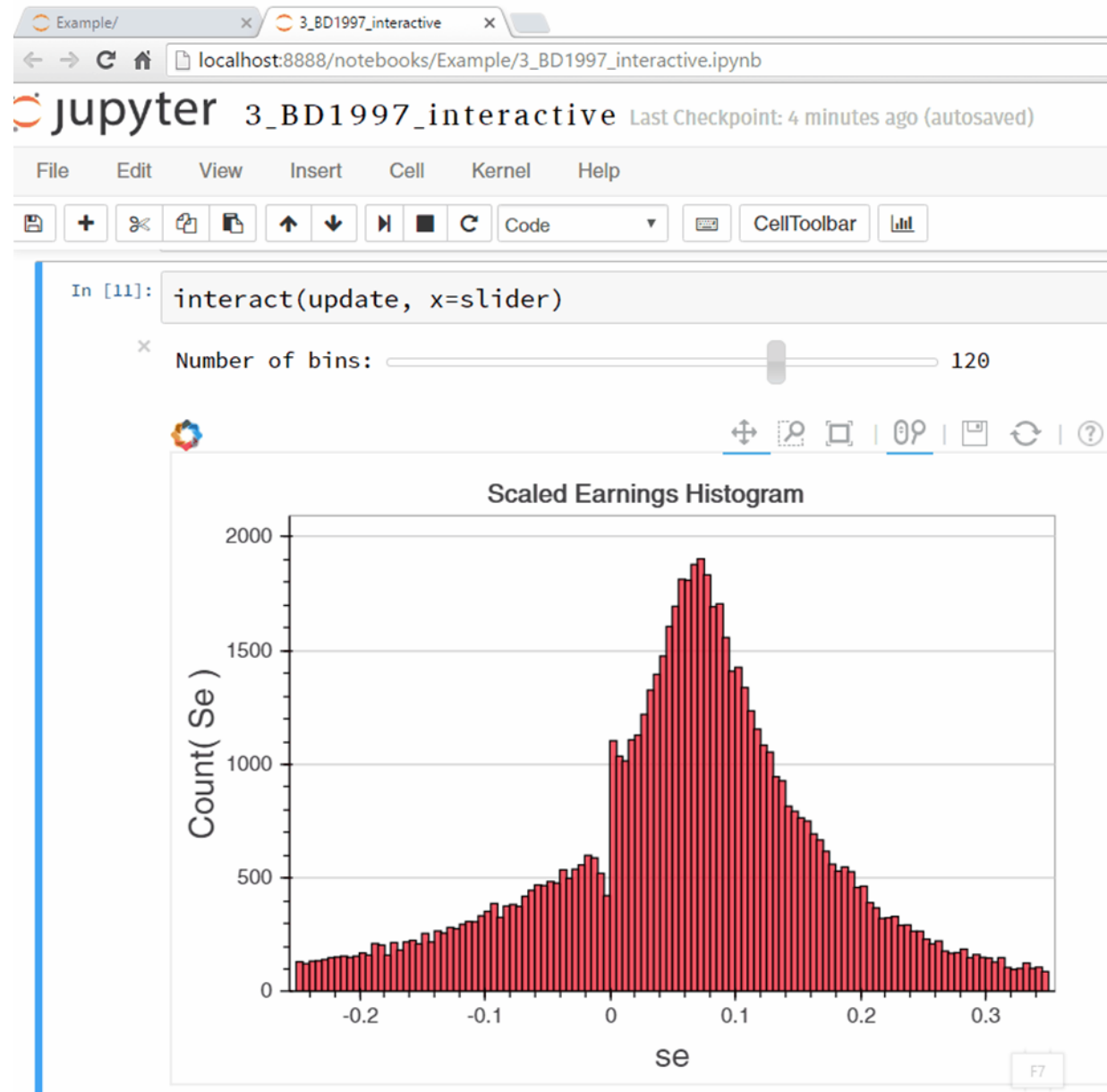
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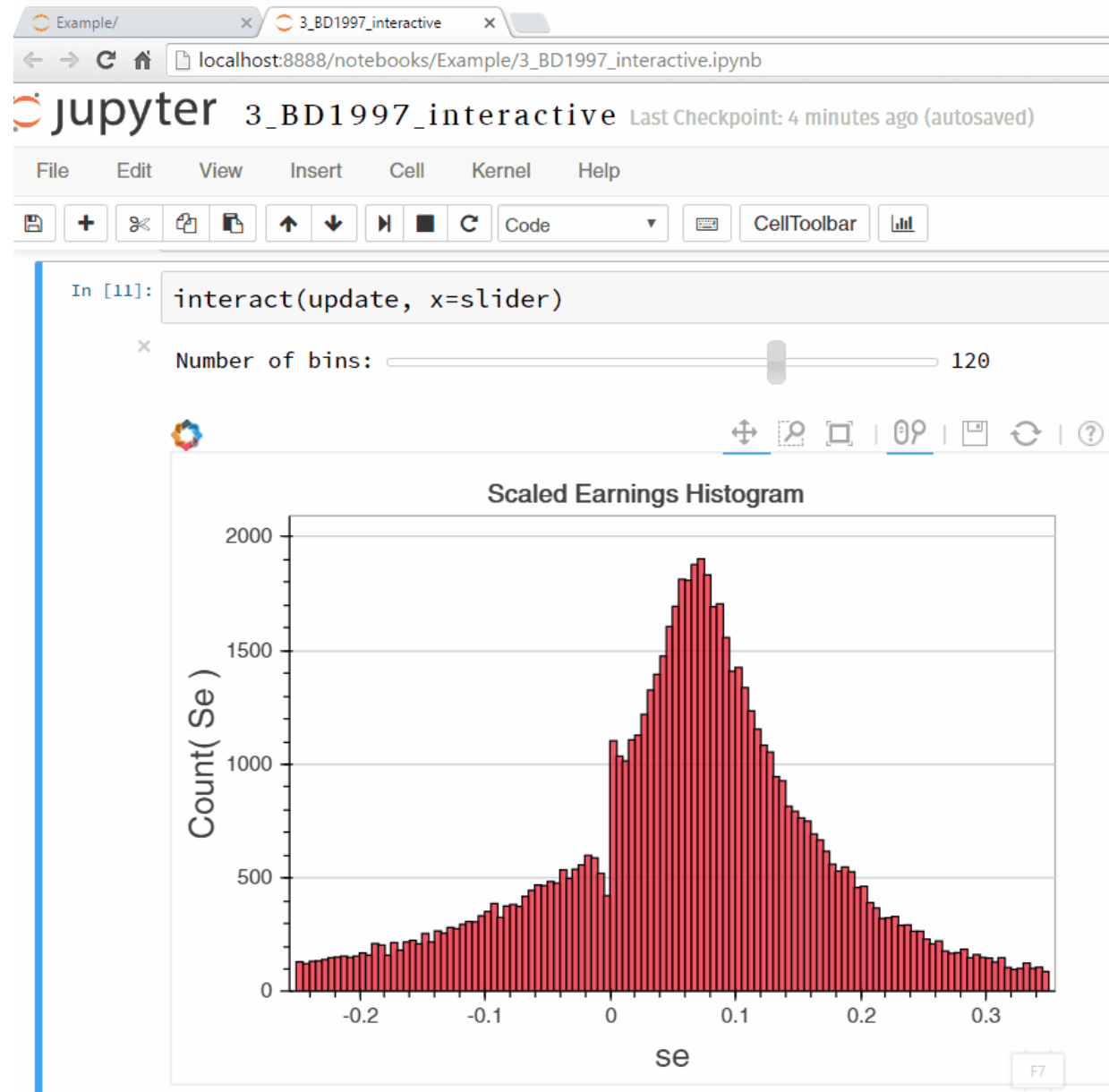
The screenshot shows a GitHub repository page for 'TiesdeKok / Internal_camp_demonstration'. The repository is private and has 1 watch, 0 stars, and 0 forks. It contains 2 commits, 1 branch, 0 releases, and 1 contributor. The repository is on the 'master' branch. A table lists the files and folders in the repository, all of which were committed initially 5 months ago.

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Interactivity



Interactivity



How to start using the Jupyter Notebook?

- Check out my `getting started` tutorial on GitHub:

https://github.com/TiesdeKok/EAA_2016_Notebook --> <https://git.io/vwhp3>

- Official website:

<http://www.jupyter.org/>

- Try it out in your browser:

<https://try.jupyter.org/>