Jupyter Overview

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Problem 1: Readability

- Code and documentation (if they exist) are in different places
- If the put comments in the source codes/scripts, the comments are plain text and can be hard to format and read
- Extra overhead for new people to join the project
Problem 2: Reproducible

- "I forgot the parameters I used to run this..."
- "I forgot to log the outputs of my run..."
- "I forgot to send a script so the analysis wouldn't work..."
- "It's hard to dig into the middle of an analysis..."

It can be nice if all the code, documentation, input, output, and error logs, are in the same document, and can be run interactive, just like Mathematica!
What is Jupyter?

- Started as ipython notebook to make Mathematica-style notebooks available for python
- Rearchitected to support multiple languages (Julia, python, R, and scala) and renamed to Jupyter
- Notebook to keep everything in a place
- Interactive compute so very useful for analyzing data
- Very extendible, e.g., can be used as a presentation software
- Can be used to generate data report (C&E use case)