

# Skills Lab 1

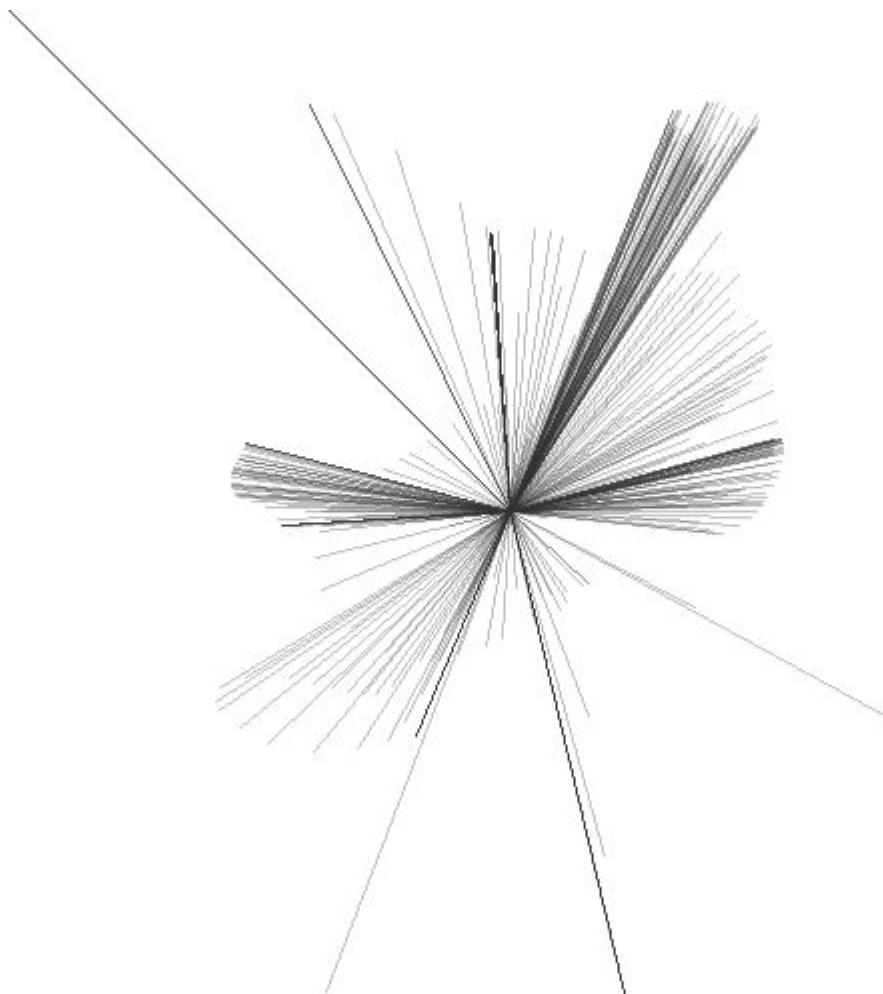
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# **Goal is to get through tutorials 1 and 2.**

Tutorial 1 is oriented towards those that have less prior python experience.

Tutorial 2 should be accessible after tutorial 1 but may be quick for those with python expertise.

[https://interactivedatascience.  
courses/labs](https://interactivedatascience.courses/labs)



# Jupyter Lite and Sketchingpy Sketchbook

Tutorial 1 uses Jupyter Lite.

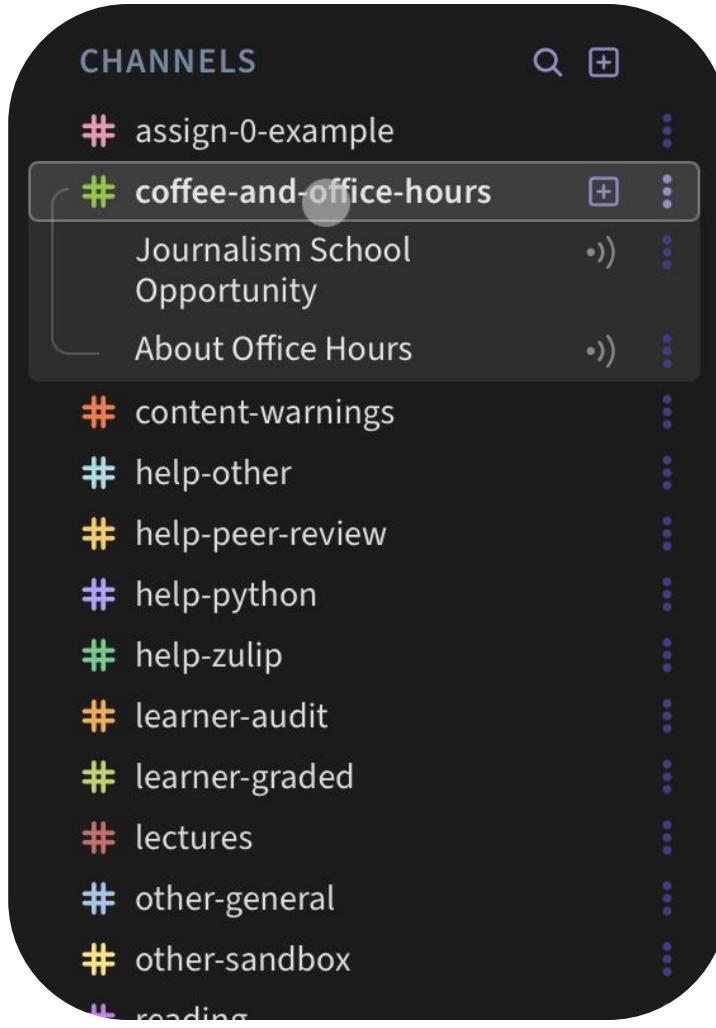
Tutorial 2 uses the Sketchingpy sketchbook.

You only need a web browser.



The image shows a screenshot of a Jupyter Lite interface. At the top, there is a toolbar with buttons for 'Run' (highlighted in purple), 'Find', 'Goto', 'Undo', and 'Redo'. Below the toolbar is a code cell containing Python code. The code imports sketchingpy and time, initializes a Sketch2D object, and defines a function draw\_moving\_line that draws a line from a fixed center point to the mouse cursor. It also sets up an on\_step callback for the sketch object and shows it.

```
1 import sketchingpy
2 import time
3
4 sketch = sketchingpy.Sketch2D(500, 400)
5
6 center_x = 500 / 2
7 center_y = 400 / 2
8 end_x = 100
9 end_y = 50
10 sketch.draw_line(center_x, center_y, end_x, end_y)
11
12 *def draw_moving_line(target):
13     mouse = sketch.get_mouse()
14     sketch.draw_line(250, 200, mouse.get_pointer_x(), mouse.get_pointer_y())
15
16 sketch.on_step(draw_moving_line)
17
18 sketch.show()
19
```



## Flipped Classroom

# Sources for imagery

<https://badriadhikari.github.io/data-viz-workshop-2021/minards/>



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