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# Pyladies March 2020

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# Agenda

# Intro

# Housekeeping:

Join PyLadies on Slack!

[slackin.pyladies.com/](https://slackin.pyladies.com/) #houston channel

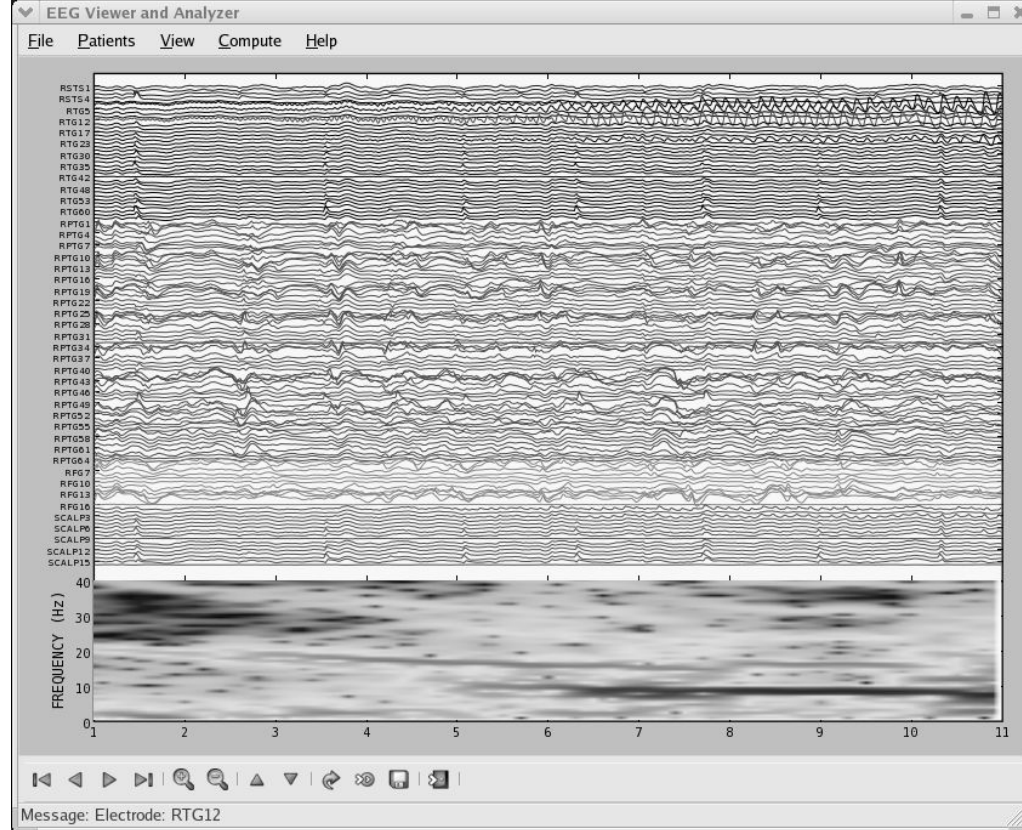
Twitter: [@hpyladies](https://twitter.com/hpyladies)

Github: <https://github.com/pyladies-houston>

# Talk + Tutorial + Networking



# What and Why Data Visualization



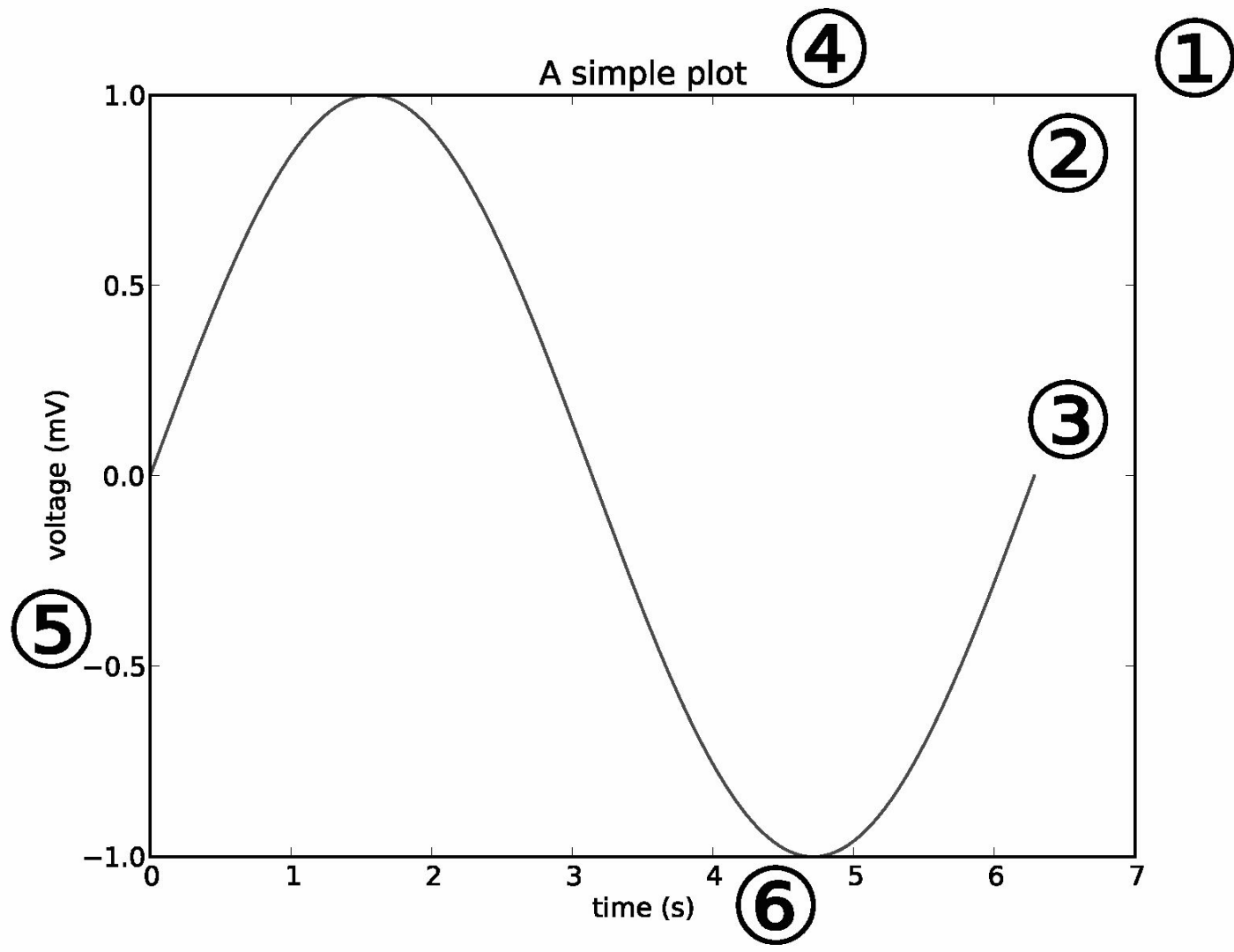
The original matplotlib  
application: an ECoG viewer

Source:  
<http://aosabook.org/en/matplotlib.html>

## Backend Layer

At the bottom of the stack is the *backend* layer, which provides concrete implementations of the abstract interface classes:

- `FigureCanvas` encapsulates the concept of a surface to draw onto (e.g. "the paper").
- `Renderer` does the drawing (e.g. "the paintbrush").
- `Event` handles user inputs such as keyboard and mouse events.



```
import matplotlib.pyplot as plt
import numpy as np

x = np.random.randn(10000)
plt.hist(x, 100)
plt.title(r'Normal distribution with  $\mu=0$ ,  $\sigma=1$ ')
plt.savefig('matplotlib_histogram.png')
plt.show()
```

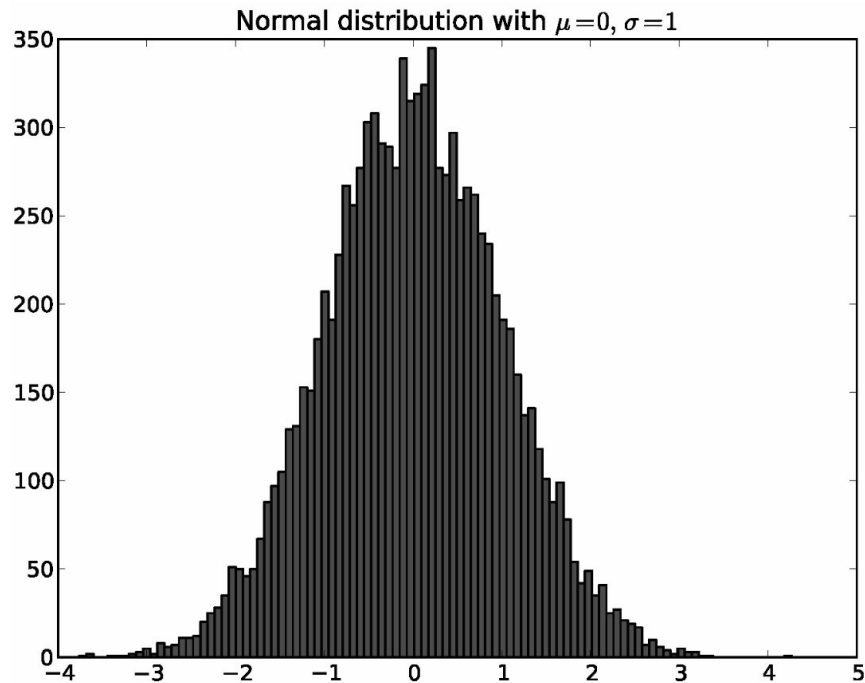


Figure 11.4: A histogram created using pyplot


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**"Good architects  
borrow".**

**- Le Corbusier**

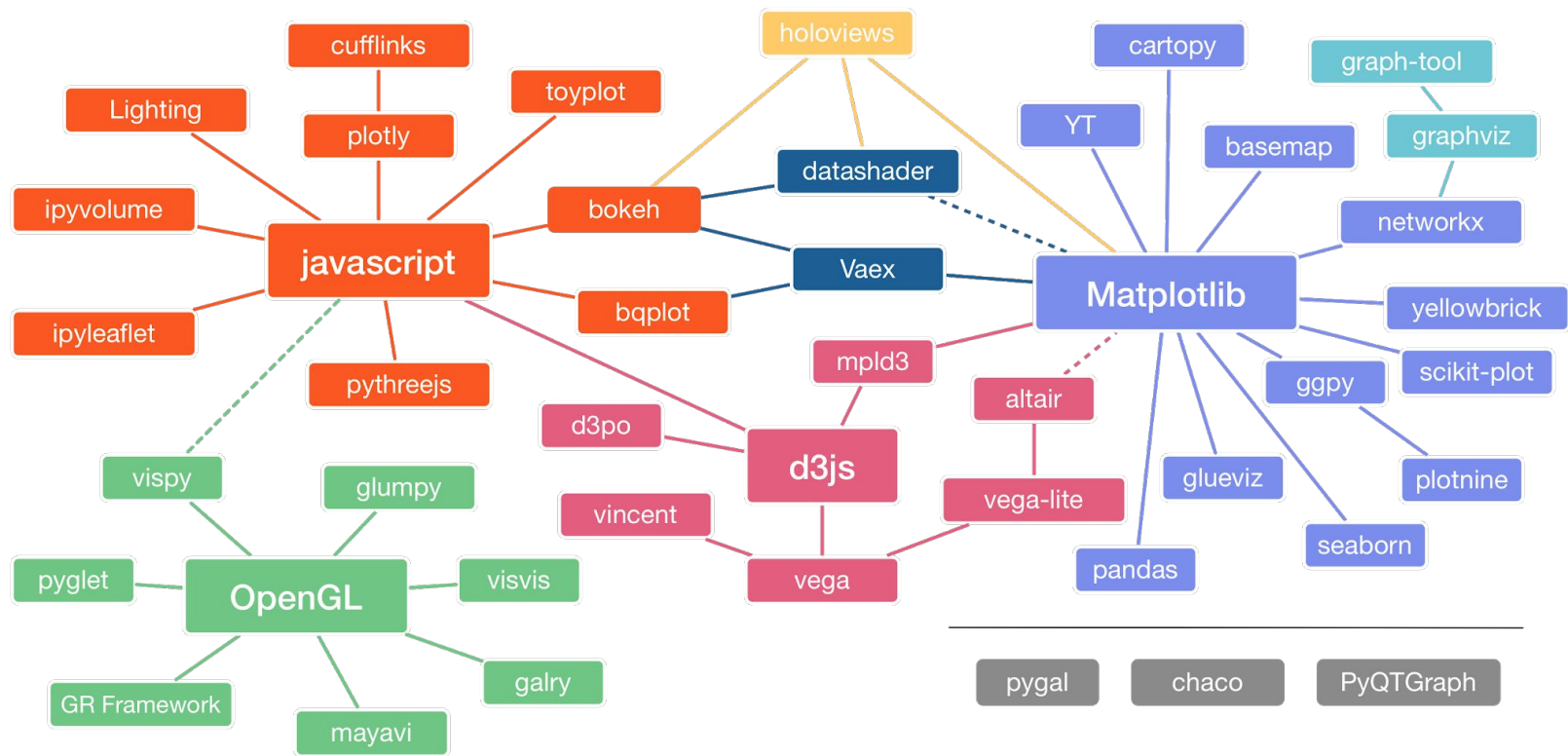
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One of the curses of Python is that it is such an easy and expressive language that developers often find it easier to re-invent and re-implement functionality that exists in other packages than work to integrate code from other packages.

- John Hunter



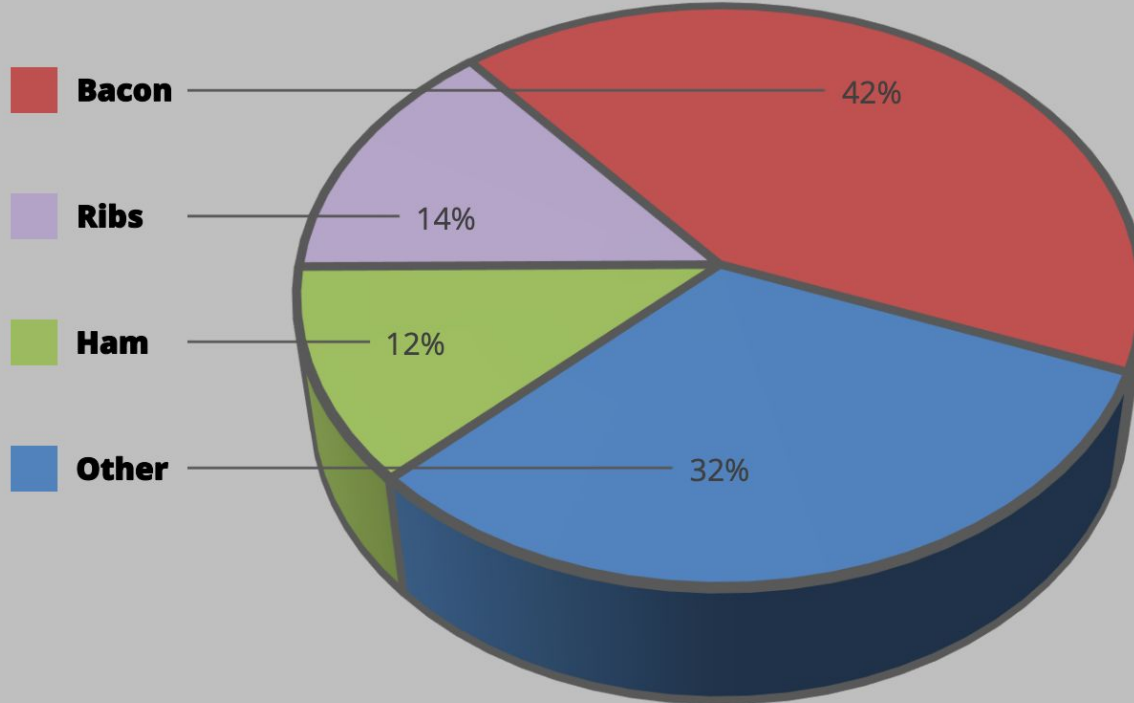
## Data Visualization

Python packages that allow you to visualize data.

PACKAGE	<a href="#">BOKEH</a>	<a href="#">DASH</a>	<a href="#">MATPLOTLIB</a>	<a href="#">SEABORN</a>	<a href="#">PLOTLY.PY</a>	<a href="#">ALTAIR</a>	<a href="#">GGPLOT</a>	<a href="#">BQPLOT</a>
Description	Interactive Data Visualization in the browser, from Pyt...	Analytical Web Apps for Python & R. No JavaScript Required.	matplotlib: plotting with Python	Statistical data visualization using matplotlib	An open-source, interactive graphing library for Python :sparkles:	Declarative statistical visualization library for Python	ggplot port for python	Plotting library for IPython/Jupyter notebooks
Category	Installable Package	Installable Package	Installable Package	Installable Package	Installable Package	Installable Package	Installable Package	Installable Package
# Using This	0	0	0	0	0	0	0	0
Python 3?	✓	✓	✓	✓	✓	✓	✗	✗
Development Status	Unknown	Production/Stable	Production/Stable	Unknown	Production/Stable	Production/Stable	Beta	n/a
Last updated	Jan. 16, 2020, 11:12 p.m.	Jan. 14, 2020, 12:13 p.m.	Sept. 19, 2019, 3:52 p.m.	Sept. 7, 2019, 2:22 p.m.	Sept. 12, 2019, 3:46 p.m.	Jan. 13, 2020, 8:44 p.m.	Nov. 20, 2016, 4:37 p.m.	Jan. 17, 2020, 1:47 p.m.
Version	1.4.0	1.8.0	3.1.2	0.9.0	4.4.1	4.0.1	0.1.2	n/a
Repo	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>	<a href="#">Github</a>
Commits								
Stars	12698	10727	10052	6415	5472	4713	3535	2623
Repo Forks	3204	1097	4463	1065	1189	464	567	384

Source: [pythongrids.org](https://pythongrids.org)

# Pig Meat Preferences



# Remove to improve the **pie chart** edition

# Pig Meat Preferences

