

# Getting Started with Python

Gavin Wiggins

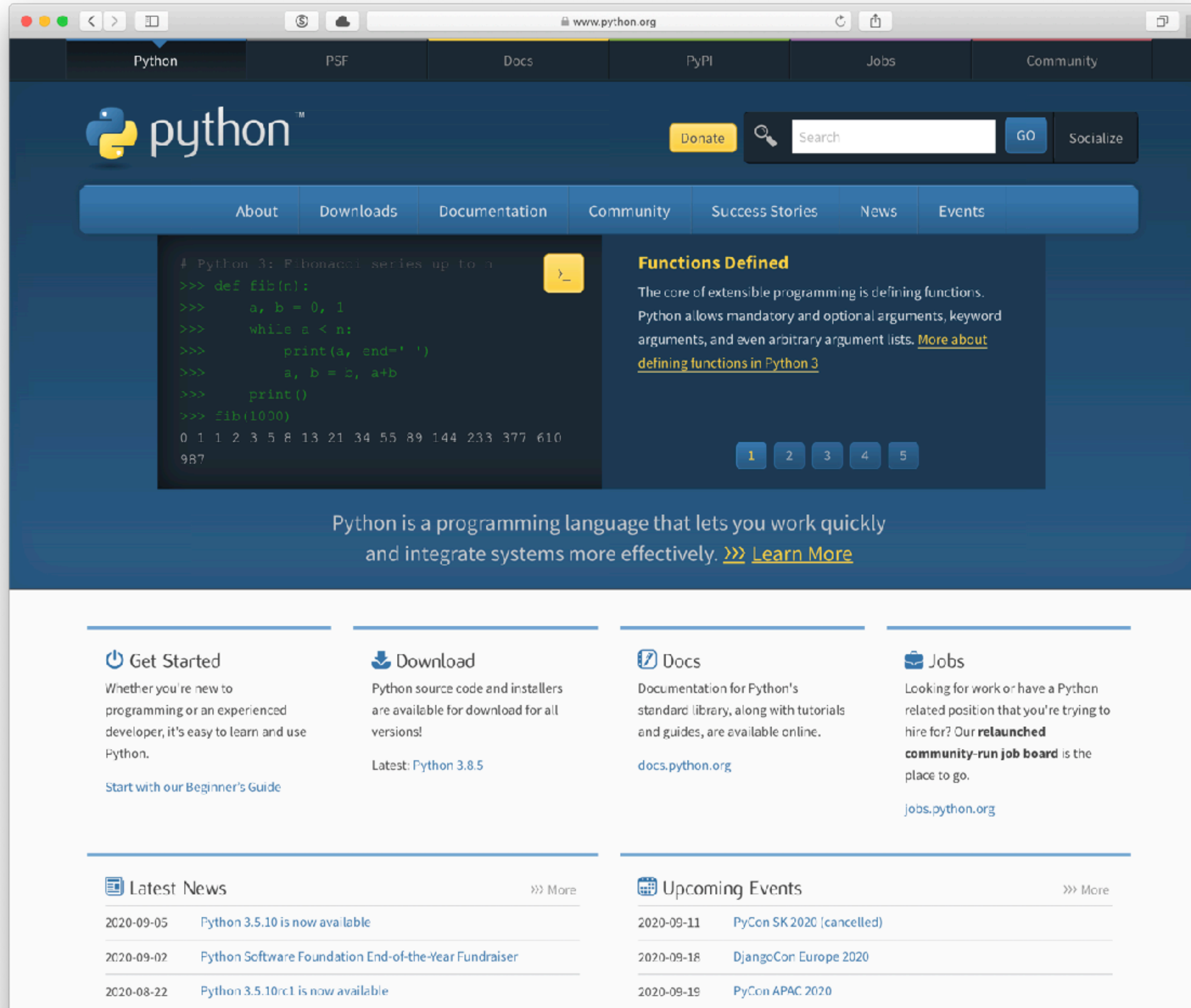
KnoxPy meetup on September 10, 2020

Slides available at <https://gavinw.me>



# Download and install Python 3

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The screenshot shows the Python.org website in a web browser. The browser's address bar displays "www.python.org". The website has a dark blue header with navigation links: Python, PSF, Docs, PyPI, Jobs, and Community. Below the header is a search bar with a "Search" input field, a "GO" button, and a "Socialize" link. A "Donate" button is also visible. The main content area features a large blue banner with the Python logo and the text "python™". Below the banner is a section titled "Functions Defined" with a description of Python's extensibility and a link to "More about defining functions in Python 3". To the left of this section is a code editor showing a Python script for calculating the Fibonacci series up to 1000. The script is as follows:

```
# Python 3: Fibonacci series up to n
>>> def fib(n):
>>>     a, b = 0, 1
>>>     while a < n:
>>>         print(a, end=' ')
>>>         a, b = b, a+b
>>>     print()
>>> fib(1000)
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610
987
```

The output of the script is displayed below the code. Below the code editor is a section titled "Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)".

The footer of the website contains four main sections:

- Get Started**: Whether you're new to programming or an experienced developer, it's easy to learn and use Python. Start with our [Beginner's Guide](#).
- Download**: Python source code and installers are available for download for all versions! Latest: [Python 3.8.5](#).
- Docs**: Documentation for Python's standard library, along with tutorials and guides, are available online. [docs.python.org](#).
- Jobs**: Looking for work or have a Python related position that you're trying to hire for? Our **relaunched community-run job board** is the place to go. [jobs.python.org](#).

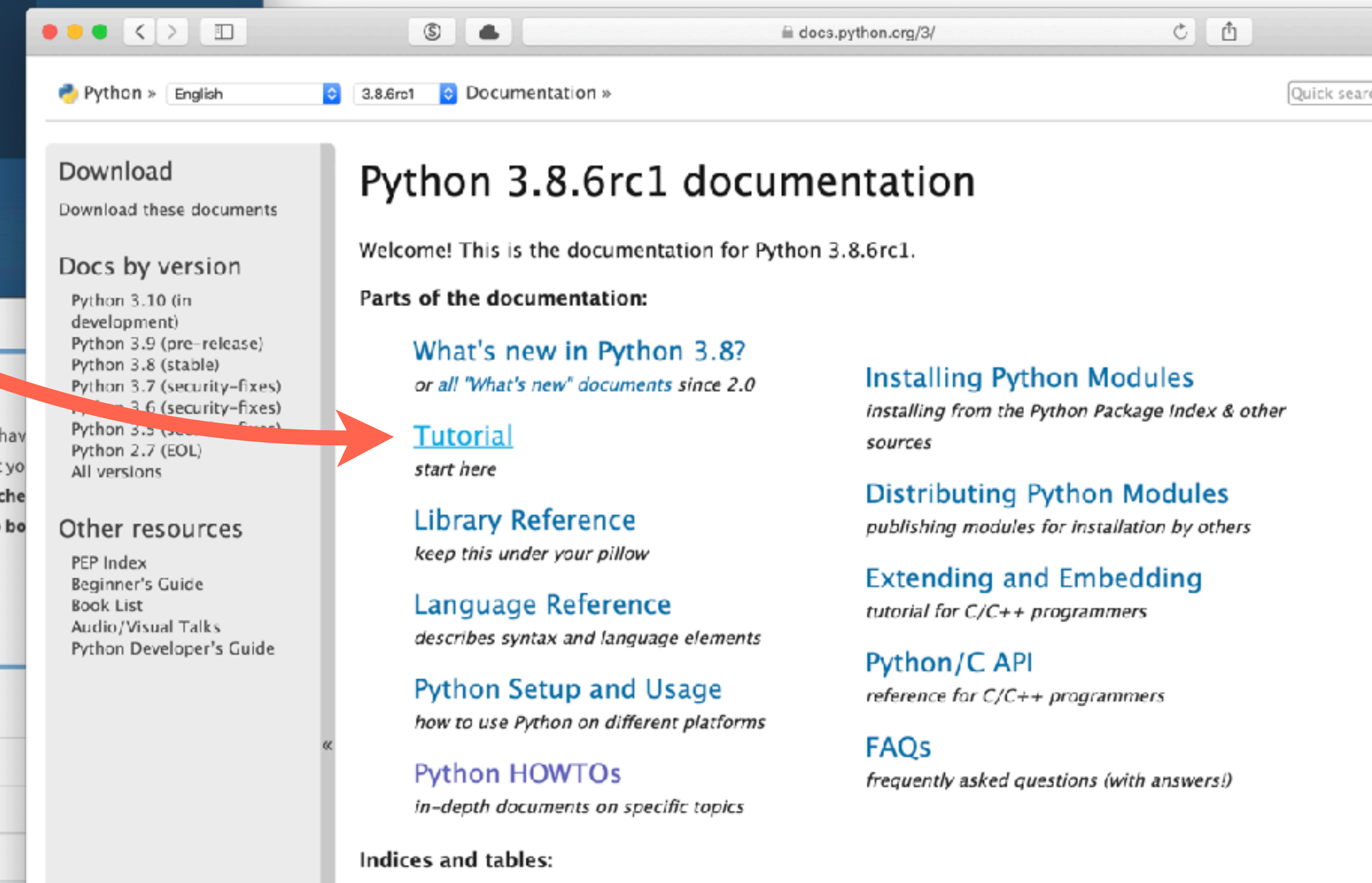
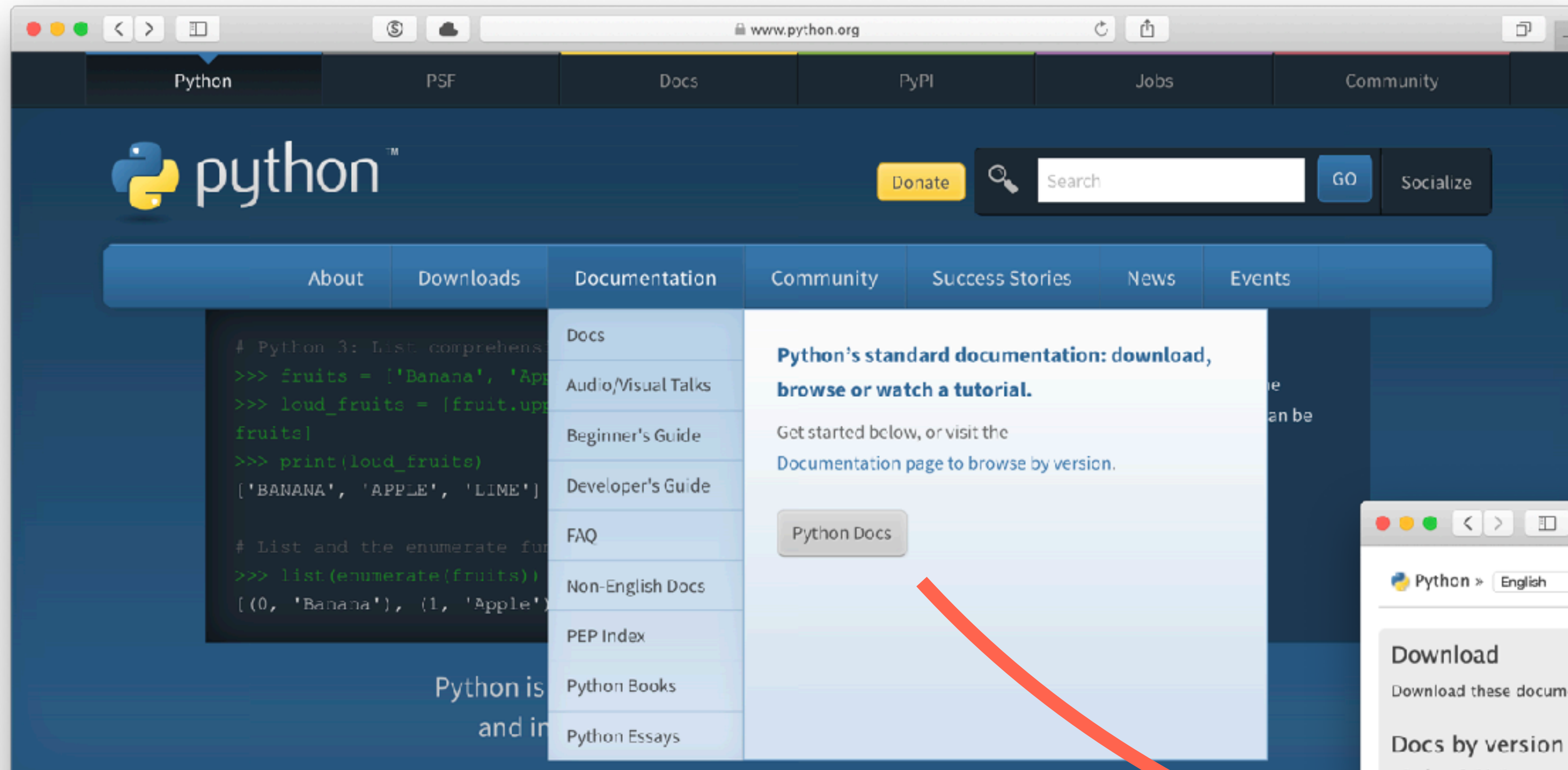
Below these sections are two more sections:

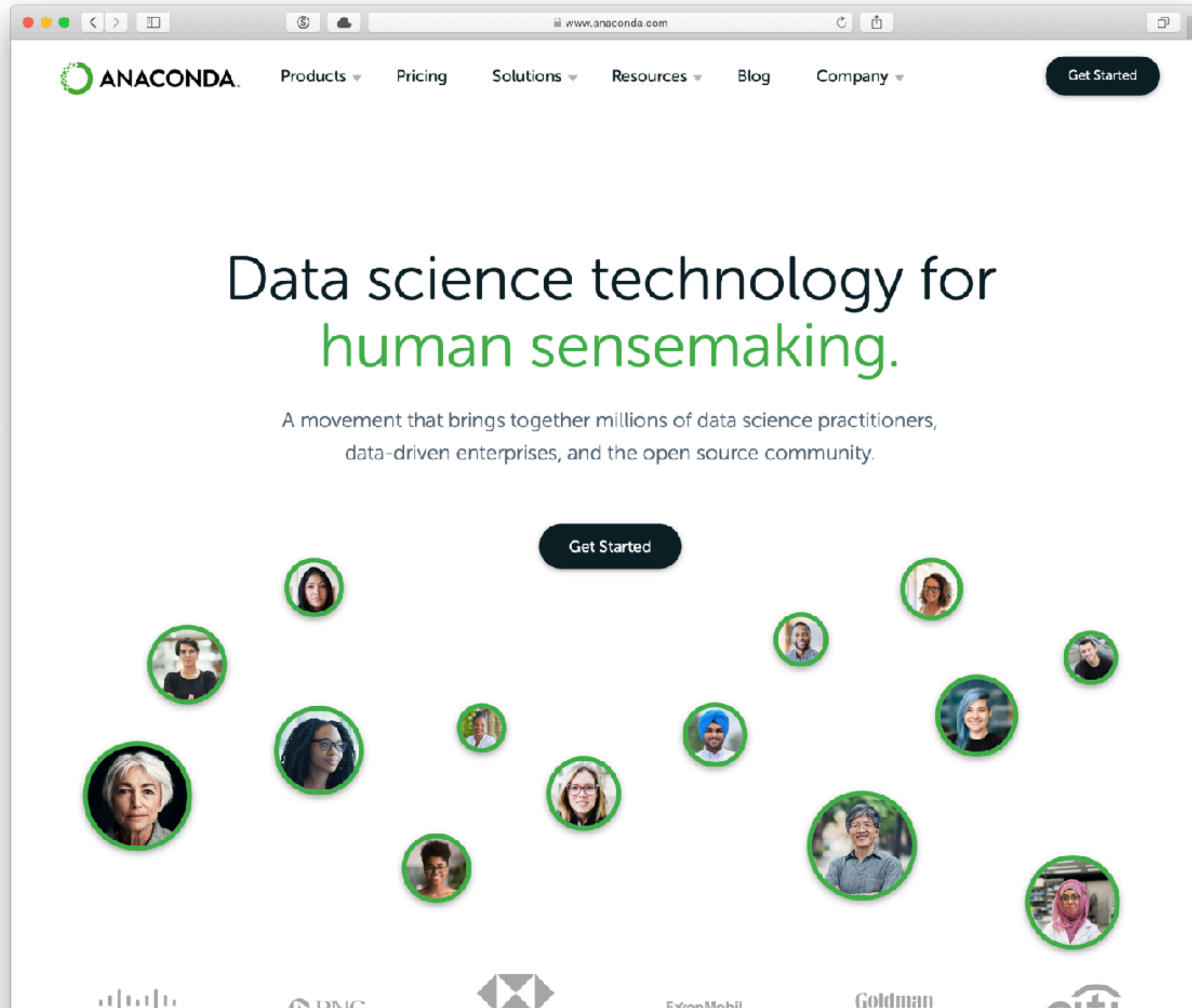
- Latest News**: A list of recent news items, including "Python 3.5.10 is now available", "Python Software Foundation End-of-the-Year Fundraiser", and "Python 3.5.10rc1 is now available". A link to "More" is provided.
- Upcoming Events**: A list of upcoming events, including "PyCon SK 2020 (cancelled)", "DjangoCon Europe 2020", and "PyCon APAC 2020". A link to "More" is provided.



# Python tutorial

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**PyCharm**

<https://www.jetbrains.com/pycharm/>



**Sublime Text**

<https://www.sublimetext.com>



**Spyder IDE**

<https://github.com/spyder-ide/spyder>



**iPython**

<https://ipython.org>



**Jupyter Notebook**

<http://jupyter.org>

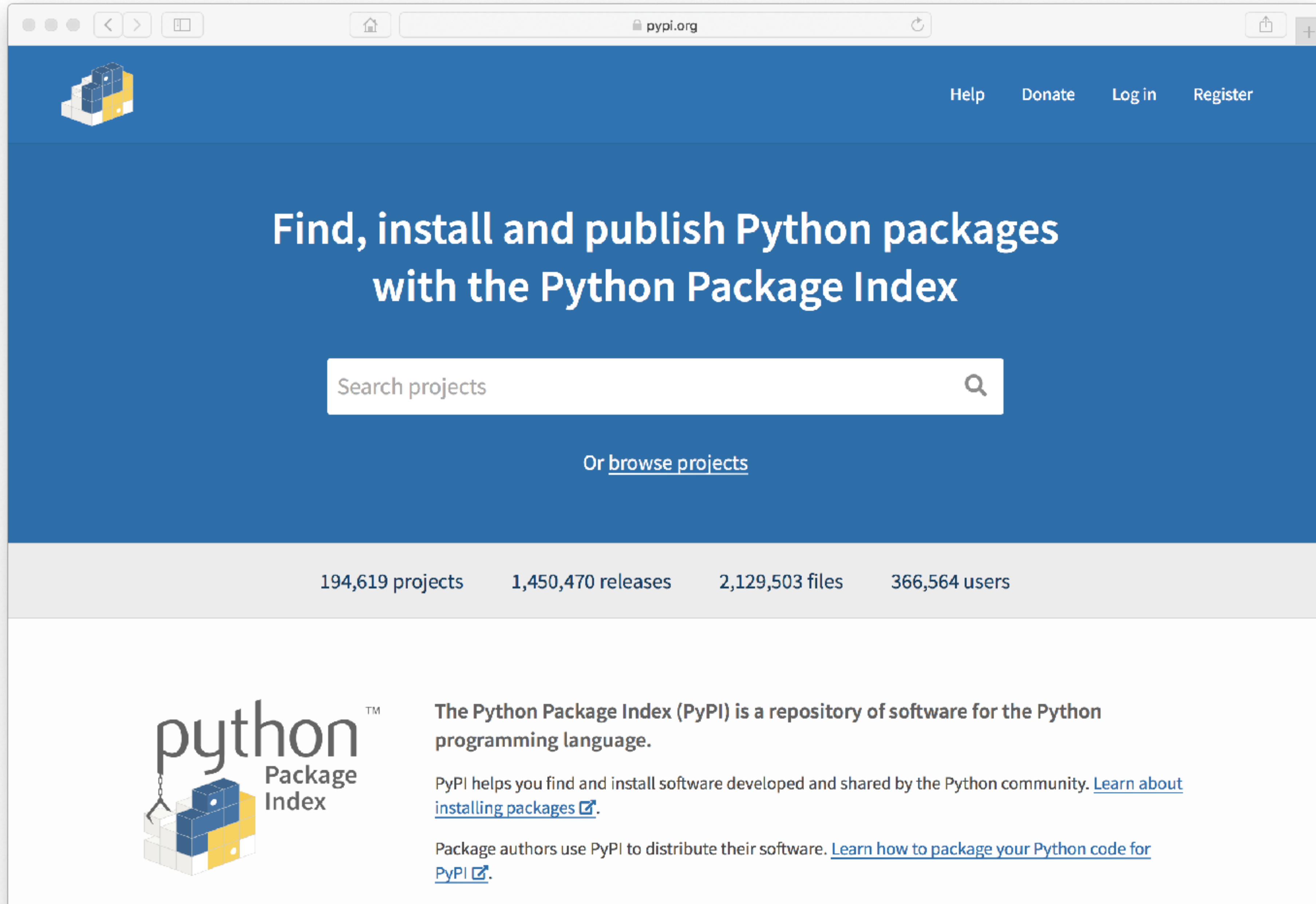


**Visual Studio Code**

<https://code.visualstudio.com>

# Python Package Index (PyPI)

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The screenshot shows the PyPI website interface. At the top, there's a navigation bar with the PyPI logo (a stack of cubes) on the left and links for Help, Donate, Log in, and Register on the right. The main heading reads "Find, install and publish Python packages with the Python Package Index". Below this is a search bar labeled "Search projects" with a magnifying glass icon. Under the search bar is a link "Or [browse projects](#)". A statistics bar displays: "194,619 projects", "1,450,470 releases", "2,129,503 files", and "366,564 users". The footer contains the "python Package Index" logo and a description: "The Python Package Index (PyPI) is a repository of software for the Python programming language." It also includes two links: "PyPI helps you find and install software developed and shared by the Python community. [Learn about installing packages](#)" and "Package authors use PyPI to distribute their software. [Learn how to package your Python code for PyPI](#)".

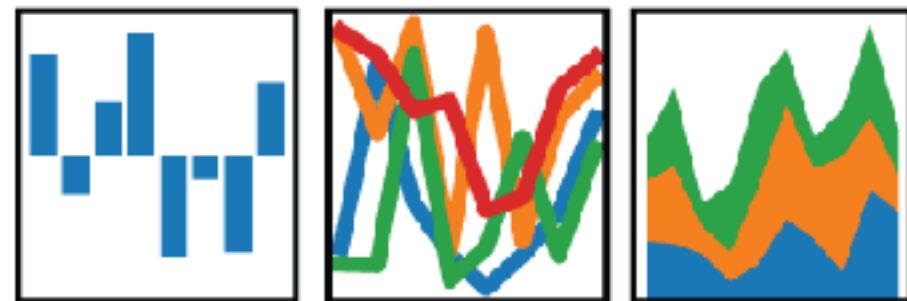
python Package Index™

The Python Package Index (PyPI) is a repository of software for the Python programming language.

PyPI helps you find and install software developed and shared by the Python community. [Learn about installing packages](#).

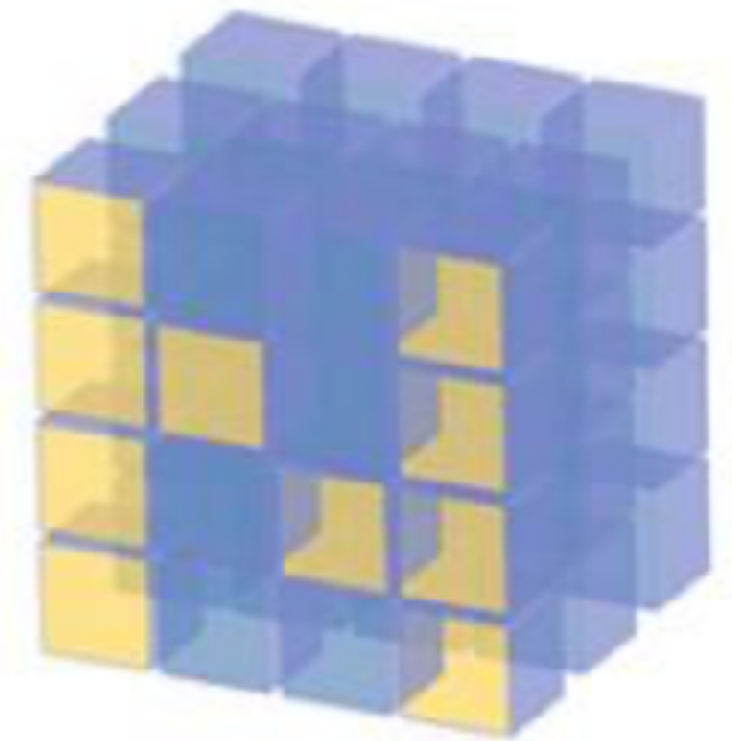
Package authors use PyPI to distribute their software. [Learn how to package your Python code for PyPI](#).

**pandas**  
 $y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$



**Pandas**

<http://pandas.pydata.org>



**NumPy**

<http://www.numpy.org>



**SciPy**

<https://www.scipy.org>



**Bokeh**

<https://bokeh.pydata.org>

**matplotlib**

**Matplotlib**

<http://matplotlib.org>



**Plotly**

<https://plotly.com/python/>





**Flask**

<http://flask.pocoo.org>



**Django**

<https://www.djangoproject.com>



**Requests**

<http://docs.python-requests.org>



**Bottle**

<https://bottlepy.org>



**h5py**

<https://www.h5py.org>



**SQLAlchemy**

<https://www.sqlalchemy.org>



# Other packages

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**MicroPython**

<https://micropython.org>



**CircuitPython**

<https://github.com/adafruit/circuitpython>



**Pillow**

<https://python-pillow.org>



**scikit-learn**

<https://scikit-learn.org>



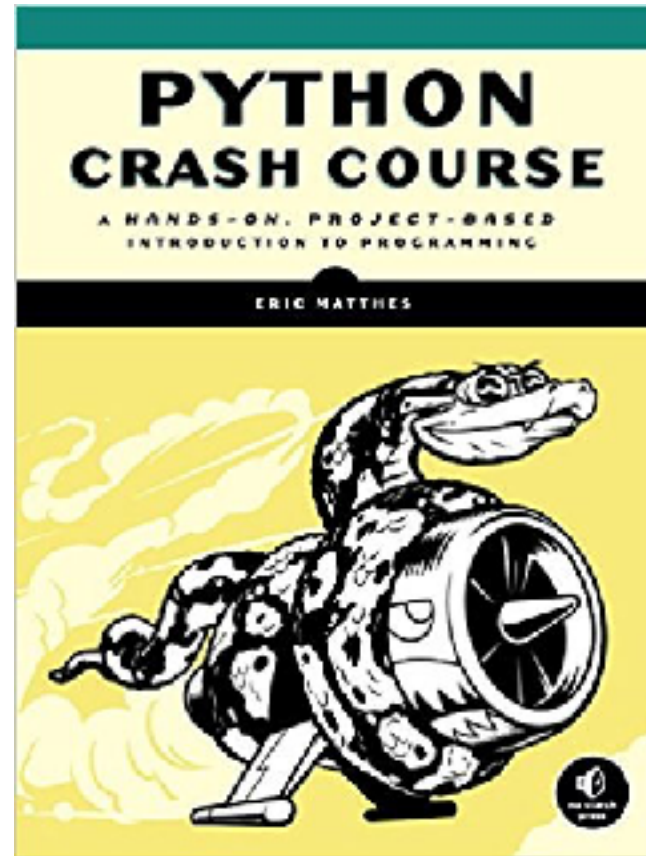
**SymPy**

<http://www.sympy.org>

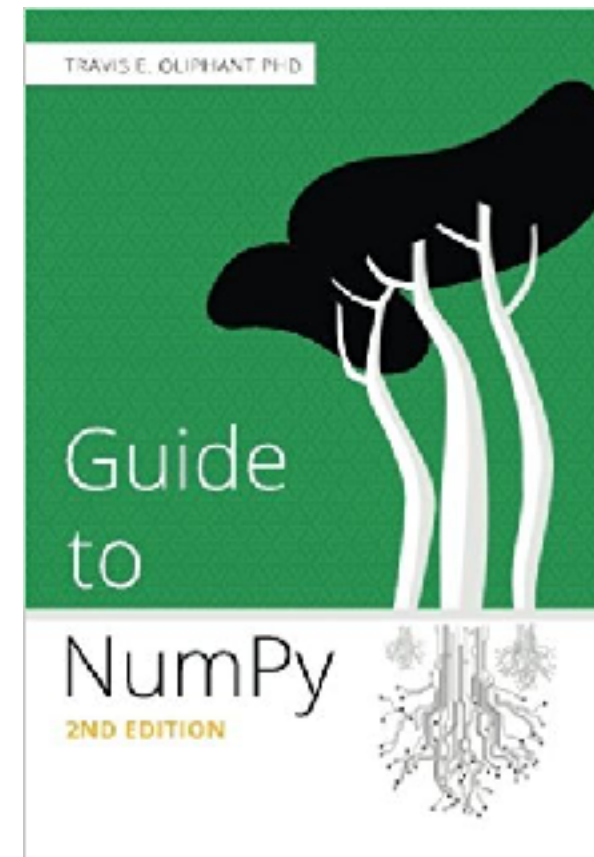


# Books

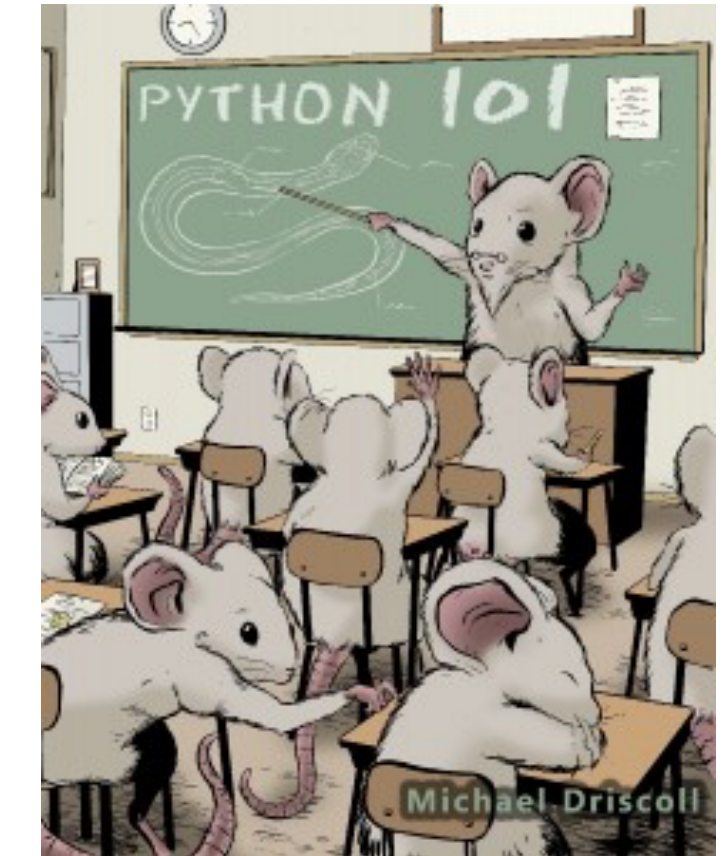
10



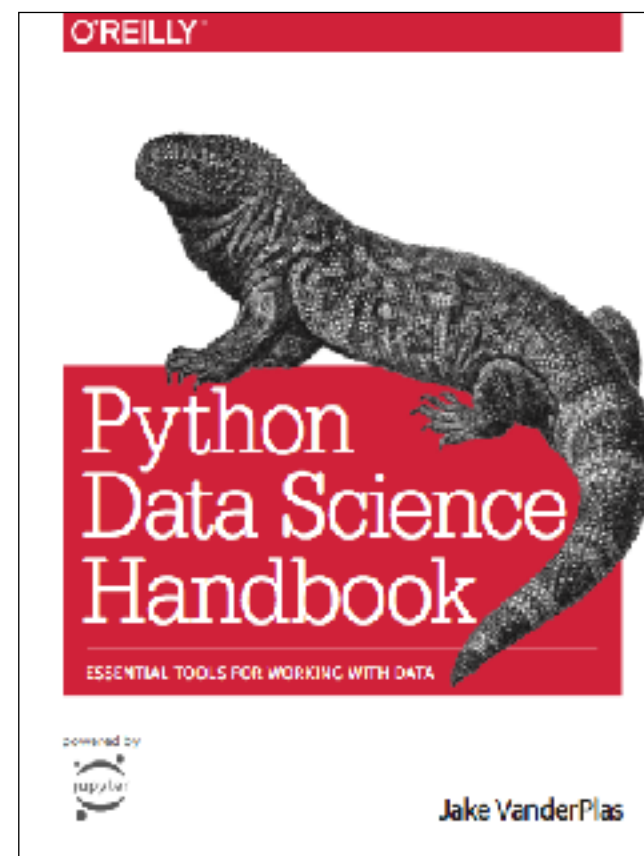
**Python Crash Course**  
by Eric Matthes



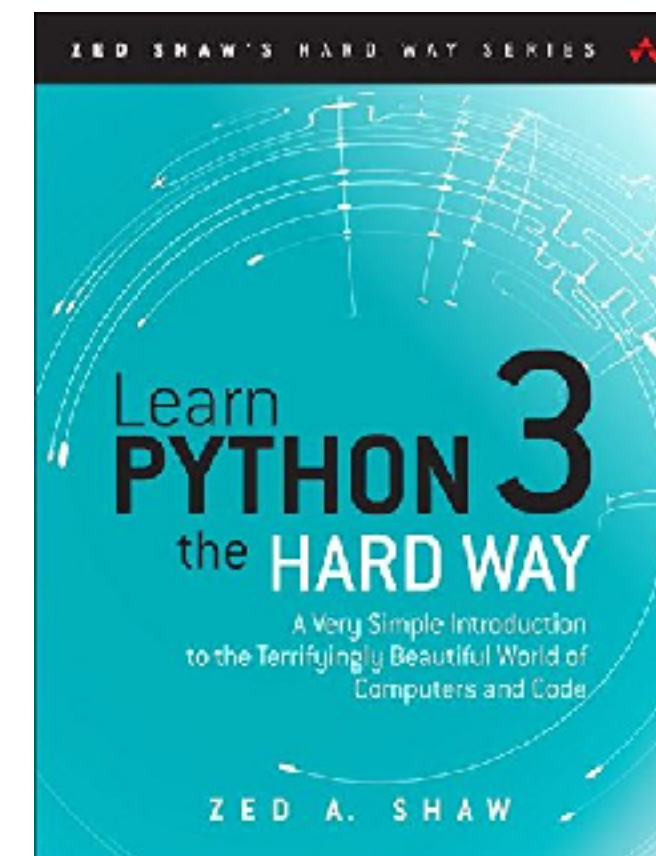
**Guide to NumPy**  
by Travis Oliphant



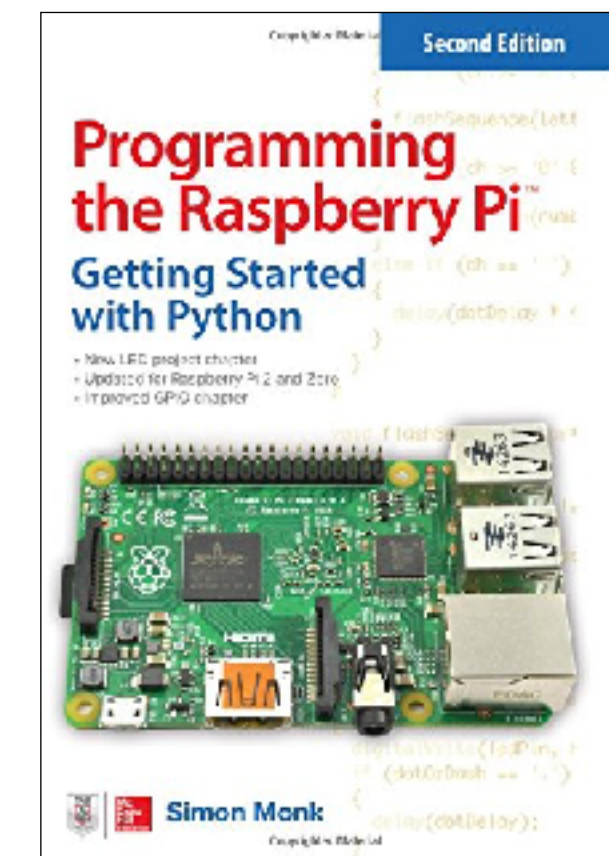
**Python 101**  
by Michael Driscoll



**Python Data Science Handbook**  
by Jake VanderPlas



**Learn Python 3 the Hard Way**  
by Zed Shaw



**Programming the Raspberry Pi**  
by Simon Monk

<https://jakevdp.github.io/PythonDataScienceHandbook/>





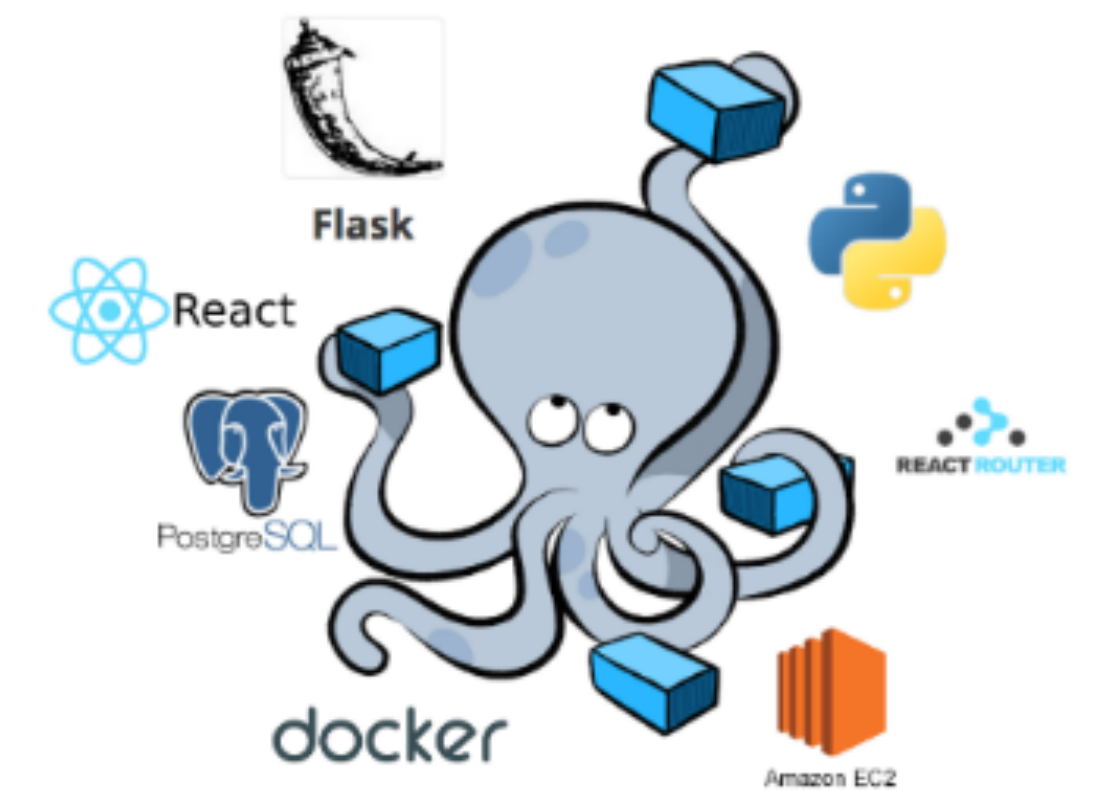
**DataCamp**

<https://www.datacamp.com>



**Snakify**

<https://snakify.org>



**Test Driven Development**

<http://testdriven.io>



**LearnPython**

<https://www.learnpython.org>



**Coursera**

<https://www.coursera.org>



**Udacity**

<https://www.udacity.com>



# Conferences

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**SciPy**

scientific computing conference

<https://conference.scipy.org>



**PyCon**

largest gathering for open-source python

<https://us.pycon.org>



**PyTennessee**

regional conference in Nashville

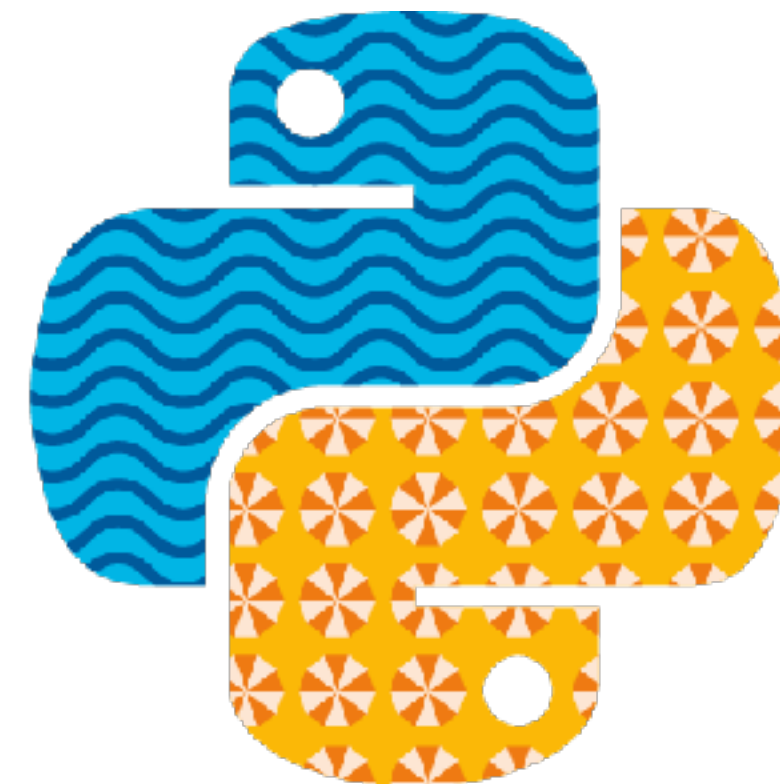
<https://www.pytennessee.org>



**AnacondaCon**

open data science conference

<https://anacondacon18.io>



**EuroPython**

largest European python conference

<https://ep2017.europython.eu/en/>

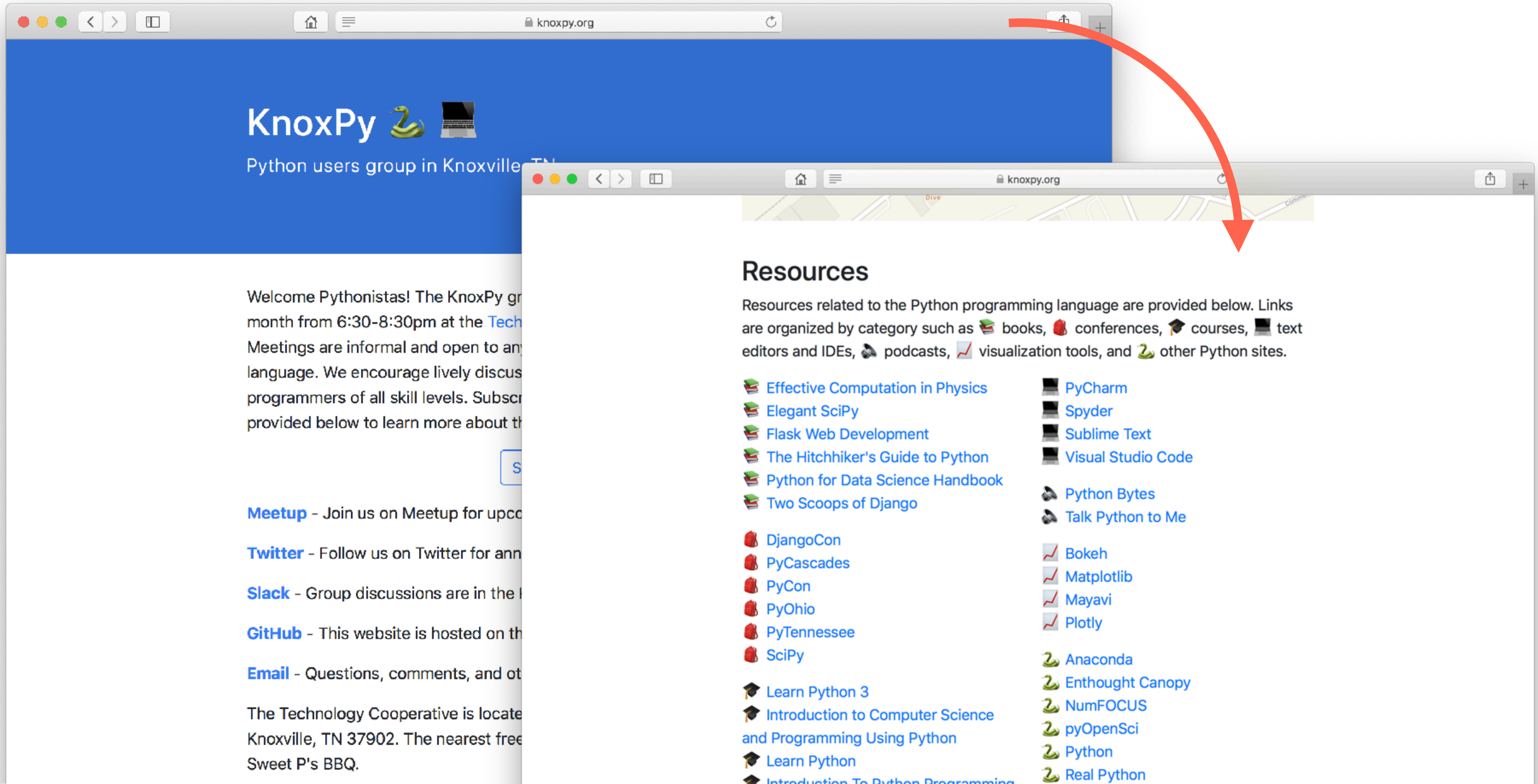


**PyOhio**

free annual python conference

<https://pyohio.org>





The screenshot shows a web browser window displaying the KnoxPy website. The browser's address bar shows 'knoxpy.org'. The website has a blue header with the 'KnoxPy' logo and a Python snake icon. Below the header, there is a welcome message and a list of resources. A red arrow points from the top right of the browser window to the 'Resources' section.

## KnoxPy

Python users group in Knoxville, TN

Welcome Pythonistas! The KnoxPy group meets the first Thursday of each month from 6:30-8:30pm at the [Tech Cooperative](#). Meetings are informal and open to anyone interested in Python. We encourage lively discussion and learning. We encourage programmers of all skill levels. Subscriptions are provided below to learn more about the group.

**Meetup** - Join us on Meetup for upcoming events.

**Twitter** - Follow us on Twitter for announcements.








**Slack** - Group discussions are in the [KnoxPy Slack](#).

































**GitHub** - This website is hosted on the [KnoxPy GitHub](#).

**Email** - Questions, comments, and other contact information is available at [info@knoxpy.org](#).

The Technology Cooperative is located at 1000 1/2 Main St, Knoxville, TN 37902. The nearest free parking is at Sweet P's BBQ.

## Resources

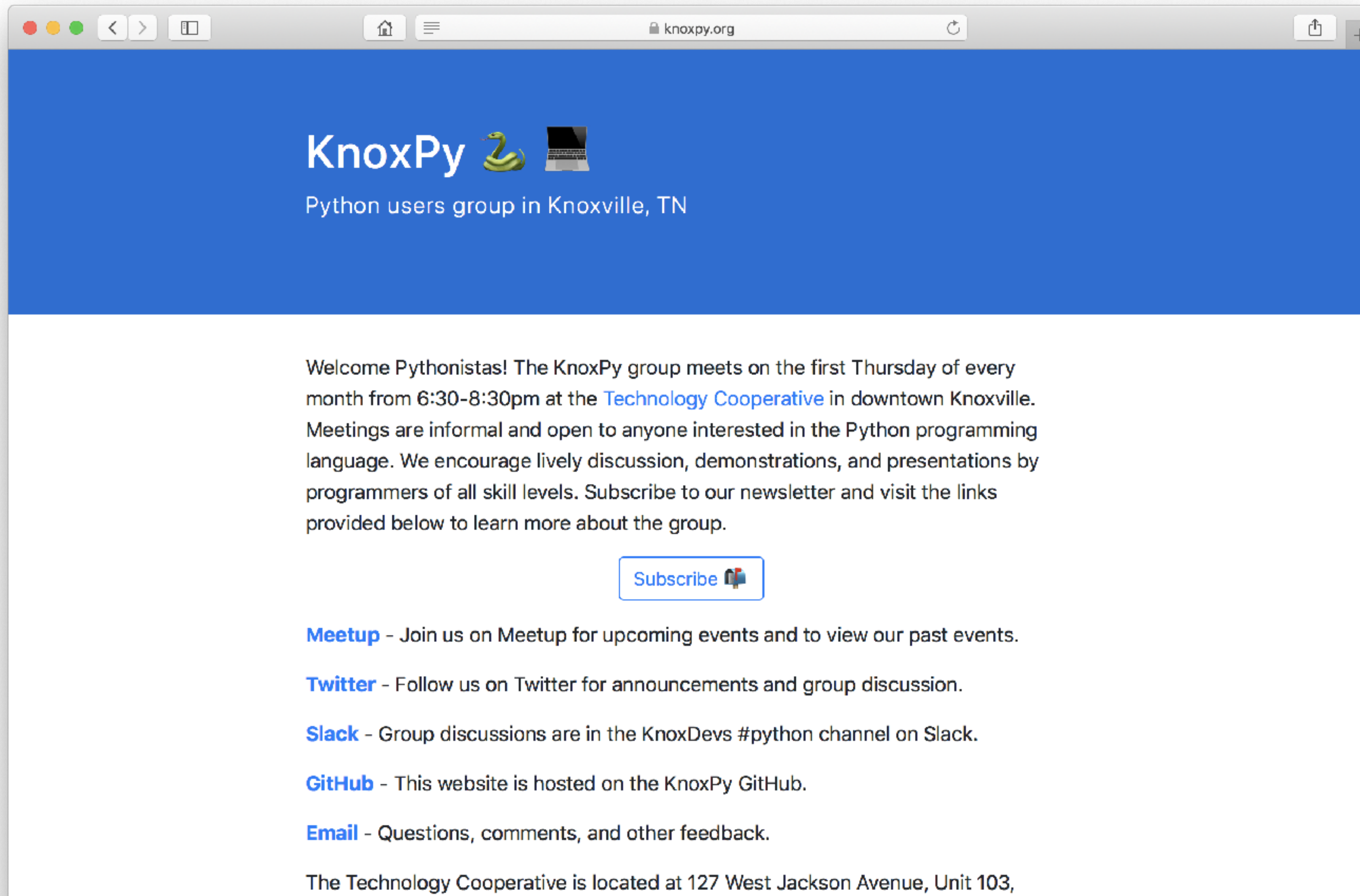
Resources related to the Python programming language are provided below. Links are organized by category such as  books,  conferences,  courses,  text editors and IDEs,  podcasts,  visualization tools, and  other Python sites.

-  [Effective Computation in Physics](#)
-  [Elegant SciPy](#)
-  [Flask Web Development](#)
-  [The Hitchhiker's Guide to Python](#)
-  [Python for Data Science Handbook](#)
-  [Two Scoops of Django](#)
-  [DjangoCon](#)
-  [PyCascades](#)
-  [PyCon](#)
-  [PyOhio](#)
-  [PyTennessee](#)
-  [SciPy](#)
-  [Learn Python 3](#)
-  [Introduction to Computer Science and Programming Using Python](#)
-  [Learn Python](#)
-  [Introduction To Python Programming](#)
-  [PyCharm](#)
-  [Spyder](#)
-  [Sublime Text](#)
-  [Visual Studio Code](#)
-  [Python Bytes](#)
-  [Talk Python to Me](#)
-  [Bokeh](#)
-  [Matplotlib](#)
-  [Mayavi](#)
-  [Plotly](#)
-  [Anaconda](#)
-  [Enthought Canopy](#)
-  [NumFOCUS](#)
-  [pyOpenSci](#)
-  [Python](#)
-  [Real Python](#)

# Next steps...

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Attend more KnoxPy meetings! <https://knoxpy.org>





# Questions?

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KnoxPy website <https://knoxpy.org>

Slides available at <https://gavinw.me>

