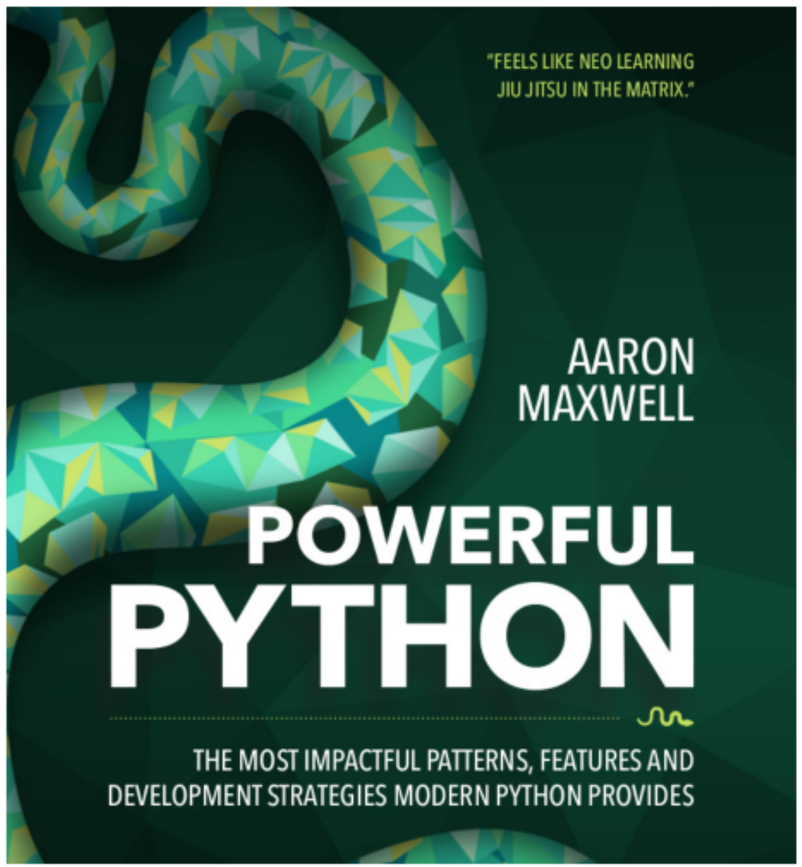
Pythonic Object-Oriented Programming

Welcome

I'm your host, Aaron Maxwell.

- Author of **Powerful Python**
- aaron@powerfulpython.com
- On twitter:
    - @powerfulpython (professional)
    - @redsymbol (personal)



Our focus in this class: Understanding Python's object model... and the object-oriented concepts you need to get the most out of it.

How we will proceed

Download courseware ZIP:

- Click on the green "Resource List" icon
- Or fetch from: https://powerfulpython.com/courseware-oop.zip

What's included:

- RESOURCES.txt with the link to your course book
- Slides
- Labs (i.e., programming exercises - more on that later)

Give you a break every hour (10 minutes).

Give me a thumbs up. (Let's try it now)

Ask questions anytime.

Python versions

In this class, we focus on Python 3.

Python 3.6 or later is **required**. We will not talk about earlier versions in this class. (There are just too many differences.)

I expect you have Python 3.6 or 3.7 installed on your system, so you can do the programming exercises.

If you use Python 2.7 at work: read PYTHON2.txt after you've completed the class.

What makes perfect?

Practice, practice, practice.

- Practice syntax (typing things in)
- Practice programming (higher-level labs)

I expect you to do your part!

You **exponentially** get out of this what you put into it.

GO FOR IT.

Running the labs

Labs are the main programming exercises. You are given a failing automated test; your job is to write Python code to make it pass.

Simply run it as a Python program, any way you like. (For example, "python3 helloworld.py")

Run unmodified first, so you can see the failure report.

When done, click the thumb's up, and find someone to high-five.

Then: Move on to the extra credit.

Lab: helloworld.py

Let's do our first lab now: 'helloworld.py`

- In `labs` folder in the courseware

Instructions are in `LABS.txt` in the courseware.
When you finish: Give me a HIGH FIVE! in the chat room, and click Thumbs up, so I know you're done.

You'll know the tests pass when you see:

```
*** ALL TESTS PASS ***
Give someone a HIGH FIVE!
```

THEN: Start browsing through the "Python 3 Object-oriented Programming" book. Look it up under the green "Resource List" icon, or find a direct link in RESOURCES.txt.

Getting the most

We'll take some class time for each lab. You may not finish, but it's **critically important** that you at least start when I tell you to.

After we're done for the day, find time to finish all the main labs before tomorrow.

Solutions are provided. Use them wisely, not foolishly:

- After you get the lab passing, compare your code to the official solution.
- Other than that, don't look at them if you can avoid it.
- The more work you can do on your own, the more you will learn. Peek at the solution to get a hint when you really need it.

Optional (**only** for future master Pythonistas): Do all the extra labs as well, as soon as you can manage.

Python Trainings

- **Scaling Python with Generators**: Write robust, reliable code to gracefully handle increasing amounts of data
- **Pythonic Object-Oriented Programming**: Master the principles of OOP, in Python
- **Pythonic Design Patterns**: Understand higher-level design patterns. Pythonically
- **Test-Driven Development In Python**: Master automated testing. It's a *superpower*.
- **Beyond Python Scripts: Logging, Modules, & Dependency Management**: For larger Python applications. Part 1
- **Beyond Python Scripts: Exceptions, Error Handling and Command-Line Interfaces**: Continued with Part 2
- **Python - The Next Level**: See into the Matrix of Python. Master facets of this language that 99% of Python developers will *never* learn

For detailed course descriptions and sign-up information:

https://powerfulpython.com/safari-trainings/

(Select "Python Trainings" under the green "Resource List" icon.)