

Introduction to Python

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Information

- My research focuses on two areas: Political and Development Economics. In my research, I deal with tons of data and (lots of) text data -> programming with Python. That's why this course.
- Introduce yourself. What are your expectations? Why are you here? What kind of data you are currently using or plan to use?

Plan for this course

- Introduction to Python foundations

The team

- Arieda Muço: MucoA@ceu.edu. Office: Quellenstrasse, 51
- Adam Nasli (TA): adam.nasli@brokerchooser.com



Arieda



Adam

We encourage you to ask questions via Slack. When needed we'll set meetings via Zoom.

Final assessment will consist of the following:

- **Quizzes in Class** (20% of final grade)
- **Problem Sets** (40% of final grade)
- **Individual Project** (40% of final grade)

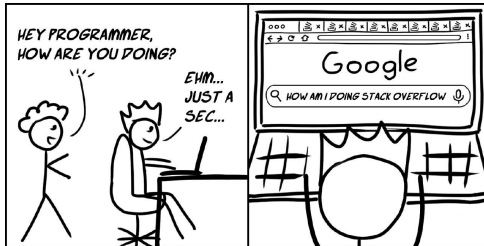
I expect most cameras on. If less than 60 percent of the class has their cameras off in a class, all participants will be deducted 1 point. Experiment with virtual backgrounds.

Deadlines

- Past deadline submissions do not get graded
- Email for meetings, questions etc
- Emails/Questions: You will get a reply if you send an email but send it 24 hours before a deadline (no response otherwise)
- Slack will be our communication tool for this course
 - ▶ Post questions and answers in respective channels
 - ▶ Keep a close eye on channels on quizzes and assignments
 - ▶ Make sure you reply in thread when needed.
- We strongly encourage peer learning. Feel free to post in the Slack channel if you think some information is of common interest

Rules

- Ask questions and feel free to google
 - ▶ Don't feel bad about this. Even software developers spend a lot of their coding time googling programming related questions
 - ▶ Important to know how to read error messages
 - ★ or google them
 - ▶ Stack Overflow is a programmer's best friend



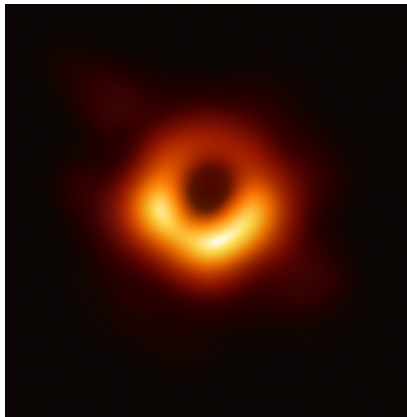
Recommended Material

- [Codecademy](#) is the place to start
- [Automate the Boring Stuff with Python](#) and [The Real Python](#) are great sources
- A Shaw, Zed. "Learn Python the hard way"
- Al Sweigart. "Automate the Boring Stuff with Python"
- Allen B. Downey. "Think Python: How to Think Like a Computer Scientist"

A bit about Python

- Programming language intended for general-purpose high-level language
- Web development, scientific and numeric education, desktop graphical user interface, software development
- Free and open source
- You can do everything that you can do in a programming language
- Big community (Google, Youtube, Nasa...)
- High readability (more than R or C)
- Python was first released in early 1980
 - ▶ Python 2 in 2000 and Python 3 in 2008

Black Holes and Python



Annoying things in Python

- Python 3 is not backward compatible with Python 2
 - ▶ In this course we will use Python 3. Python 2 is not supported anymore
 - ▶ If you are starting a new project, do so in Python 3
- Pandas Library (more on this next time)
 - ▶ But very useful
- + some minor things we'll cover throughout the course
 - ▶ example: `split()` vs `join()`
 - ★ `sentence = "We will rock you!"`
 - ★ `words = sentence.split(" ")` but `sentence = " ".join(words)`
(?)

Purpose of the course

- Programming in Python is (mildly put) very broad topics, and we will not be able to cover many(!) things
- Build strong foundations such that in the future you get confidence in starting to dig deeper into these topics