IPR Methods Workshop

Introduction to Python
Session 1

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Thursday, October 15th, 2020
12:30pm - 1:30pm

Introduction

- ▶ What is Python?
- ▶ Why Python?
- ▶ How to Python?
- ▶ Python in Action

What is Python

- ▶ Python is an open source programming language available for Windows, Mac, and *nix
  - ▶ interpreted (write scripts and "run" them with Python interpreter)
  - ▶ modules / libraries
  - ▶ object-oriented
- ▶ Object-what?
  - ▶ Create (instances of) objects
  - ▶ Objects have attributes (data) and methods (functions)
  - ▶ `new_array.shape`
  - ▶ `new_array.dot(other_array)`

Why Python

- ▶ (useful for general computing tasks)

- ▶ Data carpentry/science (numpy & Pandas modules)

- ▶ Machine Learing (scikit module)

- ▶ Active community (looking for help, looking for jobs, looking for new tools)

- ▶ Why not R or Stata or SAS?
  - ▶ reticulate, Stata16, & SAS integration
  - ▶ https://ursalabs.org/

How to Python: more snakes

- Anaconda – data science platform that includes a Navigator for installing many data science tools:
  - R, RStudio
  - Python, PyCharm, & modules
  - Julia
  - Jupyter Notebooks
- Virtual environments
  - version-specific software bubbles

Python in Action

Over to Peter

▶ Buckipr GitHub Repository:

    https://github.com/buckipr/Learning_Python