

WoCCode Summer Boot Camp:
Enhancing Your Scientific Research with Open Source Programming in Python
All times listed are Eastern Daylight Time (UTC-4)
Exact timing and topics are subject to change and will be updated as we go along.

Session 1 June 2	9:30 - 9:55	Icebreaker, Intro to hack concepts
	9:55 - 10:20	Intro: Why invest in open source programming skills?
	10 min break	
	10:30 - 10:55	Version Control 1 (talk)
	10:55 - 11:20	Version Control 1 activity
	10 min break	
	11:30 - 11:55	Environments (talk)
	11:55 - 12:30	Breakout rooms
Session 2 June 16	9:30 - 9:40	Interactive Development Environments (IDEs) - talk
	9:40 - 10:20	Python fundamentals (talk + activity)
	10 min break	
	10:30 - 11:20	Code testing (talk + activity)
	10 min break	
	11:30 - 11:55	Software Design (talk)
	11:55 - 12:30	Breakout room discussions and hacking
Session 3 July 14	9:30 - 10:20	Object Oriented Programming in Python
	10 min break	
	10:30 - 11:20	Code optimization
	10 min break	
	11:30 - 12:30	Free Discussion Q&A
Session 4 August 4 (parallel sessions) More info Below	Room 1	
	9:30 - 10:50	Making your project pip installable through PyPI
	11:00 - 12:30	General Python and Github Q&A
	Room 2	

	9:30 - 10:20	Introduction to Machine Learning (talk)
	10:30 - 11:20	Open source Python communities and projects (talk)
	11:30 - 12:30	Software outside of academia Q&A

Room 1:

- **Making your Python package pip installable on PyPI** (1-1.5 hours): A hands-on tutorial from creating a setup.py file to listing your package on PyPI. Develop your own package alongside the lecture and bring your issues to the next portion of this session.
- **General Python Q&A and hack co-work** (1.5-2 hours): Bring your hack projects or code issues to this session. At least three mentors will be available to answer general Python and Github questions.

Room 2:

- **An introduction to Machine Learning** (45m - 1h): An introduction to data preparation and model training, with a demonstration of basic algorithms using some sample dataset. Fewer algorithms will be covered in order to provide learners with first steps into machine learning.
- **A brief overview of open source communities and Python projects** (45m - 1h): A showcase of Python communities and what people are doing with Python – science research and more!
- **Software outside of academia** (45m - 1h): Q&A with people who have worked for startups, large open source software organizations, and multinational corporations.