High Performance Computing Updates
Launched in December 2018
Expanded in December 2019
5 year lifetime
Phase 1 retirement - December 2023
Phase 2 retirement - December 2024
Terremoto - Cluster Usage in Core Hours
Ginsburg
GPU Cluster
Foundations for Research Computing provides informal training for Columbia University graduate students and postdoctoral scholars to develop fundamental skills for harnessing computation: core languages and libraries, software development tools, best practices, and computational problem-solving.
Foundations Primary Activities

- Novice boot camps: 2 day training based on Software Carpentry curriculum for novice learners
- Python User Group: twice-monthly meeting for those using Python in their research or who are curious about the Python programming language
- Intermediate intensives: 1 day training for intermediate learners
- Workshops: 1.5 - 2 hour training opportunity to advance computational skills in a group setting. Workshops are often led by partners including CUIT and the Libraries
The challenges presented by COVID-19 required changes to the format of Foundations instruction, including the bootcamps. The shift to remote teaching provided some positive outcomes, including:

- Zoom format allowed helpers to address questions quickly in bootcamps
- Zoom format allowed for recordings & sharing with participants for all programming
- Able to support same number of workshop participants with a smaller number of workshop helpers
- Remote allows for greater participation in Python User Group
- Able to identify more specific needs for training by the way that researchers attended bootcamps

However there are some downsides to the transition as well:

- Software Carpentry is focused on in-person pedagogy
- Zoom fatigue
- Fewer (volunteer) instructors are comfortable with teaching in the zoom environment
January 2022 bootcamp offered remotely

- 950 Unique applicants
- Trained 127 researchers
- Collaborated with the office of Compliance to include 28 PhD students in prep for a stats course taught by Art Palmer
"I thought the instructors were extremely thorough and friendly. I was so impressed and happy with the amount of information that I learned.

It was a very good introduction to the concepts of Git, python and unix. The instructors explained everything in detail and I was always helped when I was stuck.

Clear syllabus and well-documented examples; patient instructors"
Next Bootcamp, Fall 2022

● Aim: return to in-person
● Planning is underway
● Looking for ready made space!
Python User Group - meets twice-monthly
Future goals for the program

- Recruit a new Foundations Program Manager
- Increase the capacity of the program to try and meet demand
- Continue to explore alternative models/partnerships (e.g. MechE Orientation, LEAP)
- Further develop the Python User Group community
- Develop a more robust assessment plan
- Seeking input/new partners in guiding future directions of Foundations
- Happy to take any questions