Many STEM graduate programs expect a working coding knowledge for courses and research despite many undergraduate curriculums including no coding content.

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Maggie Berrens and Parker Bremer for their help organizing
Teresa Dillinger and Dr. Ellen Hartigan O’Connor for the opportunity to participate in PFTF
The UC Davis DataLab staff including: Nick Ulle, Pamela Reynolds and Andrew Fox
My PhD advisor, Dr. Lee-Ping Wang for his support
Previous PFTF Fellow Dr. Sommer Johansen for her prior work on this project
My fellow PFTF cohort for all of the insights and laughs

Next year the Bootcamp will be sponsored by the UC Davis DataLab and provide more space, volunteers, resources, and input on content. Other graduate students are prepared to take the lead for the bootcamp next year.

Given the feedback, the bootcamp may be expanded or go slower to cover the content more in-depth.

# Students learned to import, process, and plot raw data.
# These skills were put into practice with a short project they worked on in group discussion.

import matplotlib.pyplot as plt
plt.plot(participant_departments)

import cv2

Return Project: statistically analyze factors that contribute to countries success at the Olympics

# Data importing and processing
# Plotting and visual representation of data
# Real research applications and problem solving
# Finding new libraries and resources
# Documentation
# Debugging and errors

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def motivation(problem):
    # Many STEM graduate programs expect a working coding knowledge for courses and research despite many undergraduate curriculums including no coding content.
    # The causes many unprepared graduate students to struggle in their first quarter as they must juggle teaching themselves to code while tackling challenging new material.

    return A coding bootcamp held at the beginning of the school year

class Bootcamp:
    def __init__(self, days=3, organizers=3, volunteers=9, students=62):
        self.Description = Three day workshop consisting of guided lecture, project work and group discussion

    def goals():
        return A working knowledge of the fundamentals of Python and coding,
        Develop the ability to teach themselves and find new resources,
        Emphasis on data processing]

    def content():
        return Project: statistically analyze factors that contribute to countries success at the Olympics

    import matplotlib.pyplot as plt
    plt.plot(participant_departments)

        # 62 attendees across 15 disciplines.
        # 51 students attended at least two days.

        import cv2

        # 9 volunteers facilitated student questions and discussion.
        # Guided lectures lead by 3 speakers.

        return Project: statistically analyze factors that contribute to countries success at the Olympics

        if __name__ == "__acknowledgements__":
            # Maggie Berrens and Parker Bremer for their help organizing
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    def feedback():
        (On a scale from with 1 being not at all and 5 being very, how familiar are you with the basics of Python?)

        # Of the attendees, 22 responded to a feedback survey.
        # Before the workshop, 17 respondents rated their familiarity with Python basics as < 3 on a scale from 1-5.
        # After the workshop, 18 respondents rated their familiarity as > 3.
        # 20 respondents reported they felt more confident to find new resources to teach themselves.

        print(responses)
        # "Thank you so much! I appreciate how available the resources are. I learned a lot."
        # "I do feel better equipped to seek out new coding resources"
        # "This was helpful. Maybe go a little bit slower in the future since I got lost a bit during the second day."

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        import matplotlib.pyplot as plt
        plt.plot(participant_departments)