Research Skills Academy
July 7 to July 24, 2025

https://computinginresearch.org/research-skills-academy/


```
def calculate_path_length(city_list):
    """Calculates the full length of a path through a list of cities,
    including the return home from the last city on the list."""
    total_length = 0
    for i in range(len(city_list)-1):    ## iterate up to the second-last city
        c1 = city_list[i]
        c2 = city_list[i+1]
        length = distance(c1, c2)
```
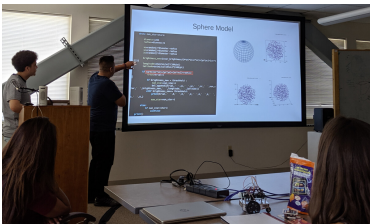
Institute for Computing in Research

WHAT WE OFFER

The Academy is a free program which prepares motivated high school (and very motivated middle school) students with skills needed to do research in any area of scholarship.

The immersion will consist of 4 days/week with 5 hours of lectures and work on projects. Lectures will be given by researchers and former interns from the Institute for Computing in Research. Our scholars will be available, but the experience is intended to be almost entirely a collaboration between students, working in small self-formed groups.
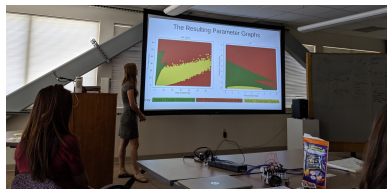
WHAT SKILLS DO WE TRAIN IN?

RESEARCH TECHNIQUE - library and web technique, data analysis, visualization, . . .

ACADEMIC AWARENESS - tours of every major academic field, including a discussion of what research is done in those fields.

TOOLS - eliminating the barrier between your mind and the final product.

COLLABORATION - students learn to support each other and find help in the Academy.

SOFT SKILLS - communication, time management, project management, . . .

CITIZENSHIP - understanding under-representation, better allies, digital citizenship and software freedom.

WRITING CONTENT - essays, college and grant applications, proposals, research articles. . .

PROJECTS much of the students' time will be spent on projects, either individually or with a partner.

GIVING PRESENTATIONS - most presentations are lousy. How do we do better?

SPECIFICITY: students list top areas of interest, and we pool guest-scientist and lecturer knowledge to prepare presentations on that topic.

OUTCOMES: students should have achieved a level of independence in their work, as well as several skills. We will put all that together with a poster session and/or an oral presentation on the project they undertake.

Read more and sign up at: https://computinginresearch.org/research-skills-academy/