



Colorado Science and Engineering Fair

2024 Individual Project Abstract Form

Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.

Title of Project: Basic Bioinformatics Functionality Using BioPython

Finalist's Name: Isabella Lorenzini

School and City: Ignacio High School Ignacio CO

Sponsor's Name: Crystal Redman

Category: Mathematics & Computer Sciences (MACS)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

The human genome contains 3.1 billion bits of information. That would be the equivalent of roughly 600k pages of information. As our computing resources become more powerful, we are better able to explore the information contained in living organisms' proteins and DNA. This project explores basic bioinformatic data analysis functionality using the open source library called BioPython.

I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.

Finalist's Signature:

Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with your Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.