John Berger

A Graphic User Interface for the Retrieval of Genomic Information

Challenge: Information
Category: Senior
Region: Southeast Alberta
City: Medicine Hat, AB
School: Medicine Hat High School

Abstract: This project focused on improving a method for accessing genomic information from Genbank. A Java program was created to achieve this goal while avoiding the difficulties of a previous command-line Perl program, and adding features such as multiple sequential downloads and a graphic interface. The resulting Java program was platform independent, and more user friendly.

Biography

I am a grade eleven student at Medicine Hat High School in Alberta. My inspirations for this project came over a year ago, when a microbiologist told me about how tedious the downloading of genomic information from NCBI was. Last year, I simplified this process by creating a Perl program to download the genome data and remove many of the steps the website has. This year, I improved over my last program by using a graphic interface that is platform independent. My interests include computer programming for game development and computer design for components and assembly. Some of my hobbies are karate, puzzles, and reading many books from various genres. I have been studying Shotokan karate for eight years, and I have achieved the level of brown belt. After grade 12 I would like to study software engineering, computer engineering, electrical engineering, or computer science. I would encourage any students interested in science to do a project in the fields they are interested in.

Awards	Value
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - $1000 Entrance Scholarship Sponsor: University of Ottawa	$1 000
Western University Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: Western University	$1 000
Total	$2 000