April 25, 2023

Supercomputing Challenge Announces Winners

Training Minds and Computers

The Supercomputing Challenge is a program where students across the state work on computational projects over the school year covering self-chosen topics such as Computer Science, Behavioral Health Issues, Wildfire Detection, and Environmental Issues.

The Challenge likes to refer to itself as an academic marathon, and this year’s group of students are recognized as critical thinkers, communicators, collaborators, and computer scientists.

We are proud to announce that the 2023 top three finalist projects are:

First place: La Cueva High School, Machine Learning based Accessible Mobile App for Activity Recognition and Freezing of Gait Monitoring in Parkinson's Patients
Team Members: Abitpal Gyawali, Aditya Koushik, Aiden Shoppel, Amandeep Prasankumar, Venkata Menta
Sponsor: Jeremy Jensen

Second place: Los Alamos High School, Mapping Anthropogenic Ocean Litter with an Autonomous Underwater Vehicle
Team Member: Daniel Kim
Sponsor: Michela Ombelli

Third place: Sandia High School, SINGS: A Simple Interactive N-body Gravitation Simulator
Team Member: Tristan Eggenberger
Sponsor: Bradley Knockel

All student final reports and videos may be viewed at: supercomputingchallenge.org

Over the course of the school year, middle and high school students who compete in the Challenge are mentored by community volunteer scientists, computer programmers, and professors. Several alumni also serve as volunteers. By participating in the Challenge, students learn coding skills as well as practice grit and persistence. They are prepared to be successful in
any career. By meeting 21st-century skills like meeting deadlines and research, students cross the finish line.

David Kratzer, Executive Director, states, "I am always impressed with the students in our state. We are so proud to be able to showcase their abilities."

On April 24th and 25th, the Challenge celebrated its 33rd annual Supercomputing Challenge Expo in Los Alamos. The Expo consisted of final student presentations, judging, a Los Alamos National Laboratory tour, supper and viewing of student work at the Bradbury Science Museum and an award ceremony to recognize their success.

Scholarships worth $15,000 were awarded to students planning to major in STEAM. Many other awards were distributed ranging from a random $50 for finishing the academic marathon to team prizes of up to $1000 for 1st and additional prizes for other categories such as teamwork, technical writing, programming prowess, and community impact.

The Supercomputing Challenge is open to New Mexico middle and high school students, including home-schooled students. Students work in teams and follow their own interests to choose a topic to model computationally. Any interested new students wanting to be involved can make plans to start the next academic year, by contacting: consult@supercomputingchallenge.org

The Supercomputing Challenge partners include Triad/Los Alamos National Lab, New Mexico Consortium, Sandia National Labs, PNM, Air Force Research Lab, BigByte and most state colleges and universities.