Dhruv Bantval
San Diego, California
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Motivated high school student, passionate about engineering and technology, with a long-term goal of becoming an Engineer.

Education

Canyon Crest Academy (CCA) | GPA: 3.71 UNW 3.9 W

10th Grade: AP Calculus AB (B) AP Computer Science Principles (A) Honors Chemistry (B) AP Chemistry(Current) Exploring Computer Science(Current) Introduction to Engineering (Current) English 10 (Current)	Aug 2024 - Current
9th: Integrated Math Honors 2 (A/B) Integrated Math Honors 3 (B/B) English 9 (A/A) Biology (A/A) Spanish 3 (A/A) Choir (1 yr A/A/A/A)	Aug 2023 - June 2024

Skills

Python, C++ (hardware), JavaScript, HTML, CSS, Arduino, circuit design, hardware prototyping, Calculus (in progress), Currently developing a research paper on Glioma. Beginner woodworking, project management.	2020-Current

Experience

Tutoring & Teaching

Science fair student leadership board- help plan and present science fair, mentee to 3 students, act as year-round ambassadors to schools and communities, work with the Management Committee to support and promote GSDSEF, spent 40 hours total.	May 2023 - Mar 2024
Science Olympiad student coach for wheeled vehicles, assist the team during invitationals, regional and state competition. Spent 60 hours total.	Aug 2023 - Feb 2024

Robotics & Engineering- Canyon Crest Academy Robotics Club | ~15 hours/week

Developed a program to send Google Form data directly to Firebase for streamlined data collection.	Feb 2025
Contributed to the development of the team's online scouting system, helping in optimizing strategy planning. Improved the main scouting program we use during competitions for quality of life features.	Jan 2025 - Current

Personal Projects

Affordable Blind Stick: Designed a smart cane with a camera and ultrasonic sensors to assist visually impaired individuals presented in the Greater San Diego Science and Engineering Fair.	2021-2022

Sign Language Glove: Built a glove using flex sensors and an accelerometer to translate sign language into spoken English. Presented in the Greater San Diego Science and Engineering Fair and the National Medical Association **(Aug 2024)**	2022-2024

Achievements

Genetic Features as Predictors of Glioblastoma Treatment Effectiveness, Submitted to GSDSEF	March 2025
Biomedical health and bio- engineering Senior category- 1st place in GSDSEF, California state fair	March 2024
Biomedical health and bio- engineering- 1st place in GSDSEF, California state fair, Broad com, Grand prize runner up, life science	March 2023
Electrical engineering and energy- 1st place in GSDSEF, CSEF Broadcom masters, grand prize runner up, physical science	March 2022
Biochemistry category, 1st place in GSDSEF, CSEF	March 2021

Extracurricular Activities

Played soccer, football, and mainly fencing. Participated in junior olympics and multiple regional tournaments in fencing. Founded a business club when entering highschool and joined the robotics club in sophomore year.	2020-Current

Research Experience

iResearch institute Genomic Features as Predictors of Glioblastoma Multiforme Treatment Effectiveness	Summer 2024
BE-SHIP- BERP A: Working on creating a device to detect anterior cruciate ligament injury in animals	Sept 2023 - Jan 2024
UCSD bioengineering studies BE-ROWworked on a Bioengineering research paper involving chicken knee periosteum, dependence of mechanical properties on collagen content and orientation literature review BE-BOAT BioMechanics & MechanoBiology	Junel 2023- Aug 2023
ASDRP, chemoinformatics, created a machine learning model that can classify and analyze HIV inhibitors by the type of disease they inhibit	Summer 2022