

SARTHAK SAMAL

Boulder, CO | (720) 883-2391 | 2905 E College Ave | sasa6845@colorado.edu | [LinkedIn](#) | U.S. Citizen

EDUCATION

Cherokee Trail High School, Aurora, CO

Graduation Year: 2020

University of Colorado, Boulder, CO

Expected Graduation: May 2024

- *BS in Biomedical Engineering, Minor in Electrical Engineering*
- *Relevant Coursework:* Biomaterials, Computer-Aided Design, Calculus I – Differential Equations, Physics I-II

SKILLS

- *Computer Languages:* MATLAB, HTML, CSS, VBA
- *Tools:* Microsoft Excel, Microsoft VBA (Visual Basic for Applications), SOLIDWORKS (CSWA Certified), 3D Printing (MarkForged, Lulzbot, and SLA), Laser Cutting, Woodworking
- *Skills:* Communication, Problem-Solving, Fast-Learner, Intermediate proficiency in Japanese

WORK EXPERIENCE

Research Assistant for FLOWLABS, Undergraduate assistant researcher, Boulder, CO Dates: May 2023 – Present

- Assisted researchers at FLOWLABS by acquiring data and running flow simulations in a lab setting.

University of Colorado, Boulder Bookstore Employee, Customer Service, Boulder, CO Dates: January 2023 – Present

- Assisted with the development of applications to assist with accounting. Additionally, worked customer service and registers as well as assisted with organization of bookstore items.

PROJECTS & LEADERSHIP EXPERIENCE

Bike Cargo Rack Modification, Class Project, Computer Aided Design and Fabrication Dates: May 2021

- Modified the design of a popular cargo rack from amazon to support a higher load as well as decrease production cost and chance of mechanical failure.
 - Reduced the number of parts needed to manufacture the rack.
- Worked within a group as well as collaborated with other groups to brainstorm modification ideas to come down to an optimal design.
- Created drawings and design sheets containing standard measurements for manufacturing.

Material Optimization for Rail Gun Manufacturing, Class Project, Intro to Computing Engineering Dates: May 2021

- Created a user form asking the user for the cost of materials as well as the parameters of the materials (capacitance of capacitors, resistance of resistors and material of rails).
- Integrated learning material from physics, calculus, VBA coding as well as strategies from Computer Aided Design and Fabrication to optimize manufacturing costs.

Ultrasonic Eyewear for the Visually Impaired, Class Project, Bioinstrumentation Dates: January 2023 - Present

- Creating eyewear that alerts the wearer of approaching objects and/or people.
- Constructing 3D models and developing code for the device to alert user via vibrational motors located on the glasses.

Colorado Crew (Rowing Team), Fundraiser, Boulder, Colorado Dates: September 2022 – February 2023

- Communicated with businesses to organize fundraising events to fund new equipment and future competitions, each event bringing in upwards of \$1500 in funds.