Aayaan Sahu   (669)-294-0189

2878 New Jersey Avenue   aayaansahu@gmail.com

Profile

Motivated high school senior passionate about computer science looking for opportunities to develop his passion into real-world problem-solving. Demonstrated proficiency through prior research project published to journal, implementing real-world techniques and problem-solving skills.

Skills

- Proficient in Python, C++
- Data management and visualization using pandas, numpy, SQL, matplotlib, seaborn
- Modeling and machine learning techniques
- Natural language processing techniques
- Problem solving and collaborative skills

Academics

Archbishop Mitty High School

Junior Year GPA: Weighted — 4.833; Unweighted — 4.000

Sophomore Year GPA: Weighted — 4.714; Unweighted — 4.000

Freshman Year GPA: Weighted — 4.333; Unweighted — 4.000

Expected Graduation: June 2025

SAT Superscore: 770 ERBW, 800 Math

AP Testing: 5's on AP Calculus AB, AP Calculus BC, AP Biology, AP Chemistry, AP Computer Science Principles, AP Physics C: Mechanics, AP English Literature and Composition, 4's on AP World History Modern, AP US History

Research Experience

ASDRP Researcher (2022-Current)

Used classification techniques to analyze bias in hospital triaging.

- Conducted data retrieval, visualization, cleaning, and preprocessing
- Used machine learning techniques and statistical modeling to decipher data
- Collaborated with research team to progress project and draft paper
- Presented project at Southern California Conference for Undergraduate Research (11/19/22)
- Published op-ed to [2022 fall issue of Stanford's JUST Health peer-reviewed editorial](#) (pg. 13)
- Published paper to the [Annals of Biomedical Science and Engineering](#)

Personal Projects

ExtempWizard - (2024) (https://github.com/Aayaan-Sahu/ExtempHelper)

Create AI-enhanced research tools to quickly provide summaries of relevant articles, to significantly decrease research times for debate competitions. Cluster articles by topic using DBSCAN.

DebateAbility - (2024) (https://github.com/Aayaan-Sahu/DebateAbility)

Developed website for the DebateAbility non-profit. Utilizes the NextJS framework with ReactJS.

Blog - (2023) (https://github.com/Aayaan-Sahu/website)

Developed the website for my AI blog. Dynamically updates routes. Posts can be created simply via Markdown notation

YELPHELP – (2023) (https://github.com/Aayaan-Sahu/YelpHelp)

Created website that utilizes natural language processing techniques to analyze sentiment of web-scraped Yelp reviews and rank menu items of restaurants.

Lightweight Facial Recognition – (2022) (https://github.com/Aayaan-Sahu/Face-Recognition)
Created a light system to detect faces based on small amounts of training data.
2D Visualizations of 3D Projections - (2022) (https://github.com/Aayaan-Sahu/cube)
Implemented 3D coordinate systems and projections onto a 2D surface and display results on the terminal.
Todo-App - (2022) (https://github.com/Aayaan-Sahu/todo-complete)
Minimalist but fully functional todo CLI tool that can add, remove, arrange, and complete items
Weather Prediction – (2020) (https://github.com/Aayaan-Sahu/ScienceFair)
Utilized LSTM architecture to predict weather given a sequence of previous weather conditions for 8th grade science fair.

Accomplishments
- Co-founder of DebateAbility, a non-profit organization that teaches disadvantaged students debate
- Ranked top 10 in the state for Policy Debate, top 10 in the state for Duo Interpretation
- Policy debate tournament champion at Martin Luther King Jr. Invitational
- Undergraduate Achievement Award for Mathematics recipient
- 3rd degree Taekwondo black belt