



KUSH GULATI

ENVIRONMENT ADVOCATE

ABOUT ME

Passionate high school junior and environment advocate focused on AI, sustainability, and community service

CONTACT

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SKILLS



EDUCATION

Newsome High School - 11th Grade
GPA: 3.826 (unweighted)
out of 4.0. 5.466 (weighted)

PSAT - 93rd Percentile
AP Courses Completed (Score):
AP Human Geography,
AP Environmental Science,
AP Statistics, AP Computer
Science Princ.

AP Courses In Progress: AP Chem,
AP Calculus AB, AP Seminar, AP US
History, AP English Language and
Composition

SCIENTIFIC RESEARCH

- 6th Grade science project - Studying loss of energy during conversion to electric energy in various renewable sources of energy (hydro, solar, wind).
- 7th Grade science project - Studying the impact of atmospheric pollution on telescopic images.
- 8th Grade science project - Can we solve the issue of Climate change? - A data focused analysis of what-if scenarios.
- 9 -10th Grade science project - Studying the potential of natural substances to neutralize pollutants in ocean water.
- 11th Grade science project - Comprehensive analysis of the impact of anthropogenic factors including temperature, acidification and high nutrient content and natural factors including dissolved oxygen, salinity and wave motion on newly outplanted corals for enhanced coral reef restoration.

HONORS & AWARDS

- Member of the National Honors Society chapter of the Newsome High School (11th Grade)
- Florida State Finalist - Certificate for outstanding STEM Research at 69th State Science and Engineering Fair (10th grade)
- Certificate and recognition for - "Outstanding project from the West Panhandle Regional Science Fair" for 10th grade science fair project (10th Grade)
- NOAA's 2024 "Taking the Pulse of the Planet Award for research that has demonstrated the principles and technical innovations that offer the greatest potential for an improved understanding of Earth's Dynamic Processes." for science research.
- 2023 Recipient of Research Grant from Mote Marine Lab and Aquarium's Youth Ocean Conservation Summit for my scientific research projects. (10th grade)
- Presented at Columbia Climate Schools's Live K-12 sessions - Topic - "Why, what and how of Coral reef conservation and restoration (10th grade)
- Awarded 1st prize at Hillsborough County STEM Fair for a project in the "Earth and Environmental Science" category. (10th grade)
- Awarded 2nd prize at state level for science fair project by Science National Honors Society (9th grade)
- Adobe Certification in Visual Design, Photoshop and Graphic Design, Lightroom (9th Grade)
- Recognized by Tampa Area's Osprey Observer newspaper for my science research and volunteer work.
- Nominated to 2021 Broadcom Masters award for science project studying the impact of atmospheric pollution on telescopic images (7th Grade)
- Florida State Finalist - Certificate for outstanding STEM Research at 66th State Science and Engineering Fair (7th Grade)
- Certificate of outstanding achievement for atmospheric and related sciences from the American Meteorological Society for 7th grade science project.

WORK EXPERIENCE/SUMMER TRAINING

Research assistant with Mote Marine Laboratory, Summerland Key, Florida - Nov 2022 - Present

- As a volunteer research assistant, worked with Mote Marine Laboratory at Elizabeth Moore International Center for Coral Reef Research & Restoration) to analyze and segment orthomosaic images of several tens of coral reef sites taken over several periods of time. Conducted dives to monitor health of outplanted corals, cleaning harmful algae around recently outplanted corals, cleaning algae from ocean based coral nurseries and planted new corals in support of coral reef conservation and restoration organizations at various reef sites in the Florida keys.
- Assisted scientists and learned on the job various tasks at the coral labs such as coral husbandry tasks, water quality experimentation coral disease research, coral reproduction research and advanced imaging.
- Videographed several dives, and helped process and post video content for social media platforms to support coral conservation efforts.
- As an organizing member of the Youth Ocean Conservation summit (YOCS) at Mote Marine Labs, helped plan and organize the annual summit in Sarasota, FL.

Marketing Chair - Youth Advisory Council (YAC) for Reef Renewal USA - Nov 2022 - Present

- Led peer team members to brainstorm creative ideas and to choose and execute the best ones for increasing awareness, new volunteer engagement and obtaining donations to fund coral reef research and conservation efforts.
- Participated in several volunteer dives to support coral conservation efforts including Earth Day 2023, World Oceans day June 8th 2023.
- Videographed several dives, and helped process and post video content for social media platforms to support coral conservation efforts.
- Led efforts for a 3D printing project to print a model of a ready to plant staghorn coral to support classroom education of coral conservation efforts to students in a middle school in Boston, MA.

John Hopkins University - University Course- July 1st - 26th '2024

- Completed college level course - Sustainable Energy Engineering 101 - learning about ArcGIS, electricity consumption analyses, exploring potential and applicable energy sources and solutions, and understanding energy demand and its impact on society and the environment.
- Explored and compared personal and commercial energy consumption patterns and explored solutions for a more sustainable world.
- Researched, prepared and presented final project for the course titled - "Climate impacts on the world's oceans and potential solutions - A data-based decision making approach" to peers and faculty members.

Marine Biology Summer Program at Boston Leadership Institute, Wellesley, MA. - July-Aug 2023

- Participated in a 3-week summer program studying marine biology, where I engaged in hands-on experiences and learning.
- Collaborated as a team leader for a diverse group of students, including sophomores, juniors, and seniors.
- Interacted with esteemed marine biology experts, attending lectures and seminars led by faculty members.
- Conducted in-depth research on identifying disease and injury in marine animals and investigating root causes.
- Through this program, I gained practical insights into marine ecosystems and species, fostering a deeper understanding of conservation and sustainability of marine life large and small in the world's oceans

Columbia Climate School - Summer Program - July 2nd - 14th '2023

- Completed Columbia university's climate school summer program for high school students. Served as the team leader of my team of 8 including sophomores, juniors and seniors. Attended lectures and seminars from Columbia faculty.
- Researched, prepared and presented a climate action plan for remediating the effects of microplastics pollution in mangroves.
- Featured on Columbia Climate school K-12 video series to showcase experience and research in the field marine and coral conservation.

EXTRA-CURRICULAR ACTIVITIES

- Teen Volunteer with Mote at Mote Marine Lab & Aquarium' - Sarasota Campus
- Leader member and grant recipient for the Youth Ocean Conservation Summit.
- PADI Scuba diving certifications - Advanced open water & Project AWARE Coral conservation
- Varsity Tennis
- Senator Student Government
- JROTC Leadership Club member
- Marine Science Club member
- Scholar bowl
- Indian Association of Naples, FL - India fest Assistant Organizer
- Model UN participant
- Business/Entrepreneurship clubs - DECA/FBLA
- STEM Club

LANGUAGES

English : Native

World Language courses : Spanish 1, Spanish 2, Spanish 3 Hons Summer 2024 - Application of Artificial Intelligence course for 0.5 credits.