VEDANT MEHTA

Suwanee, GA • veds.mehta@gmail.com • linkedin.com/in/vedsmehta

EDUCATION

LAMBERT HIGH SCHOOL **Suwanee, GA**
High School Student **2022-2026**

- Junior Class Valedictorian (Rank 1/784). 4.0/4.0 GPA (Unweighted). 1580/1600 SAT. 35/36 ACT.

GEORGIA INSTITUTE OF TECHNOLOGY
Dual Enrollment Mathematics and Computer Science **2024-2026**

- Taking Multivariable Calculus (MATH 2551). Have completed Introduction to Computer Science (CS 1301) and Linear Algebra (MATH1554). 4.0/4.0 GPA.

EXPERIENCE

HYPE **Atlanta, GA**
Executive Director **2023-Present**

Collaborated closely with organization leadership and local partners to create impactful programs empowering youth, including workshops and project-based learning experiences. Established relationships with community organizations and developed education curricula for K-5 students, expanding access to STEM resources within the community. Initiatives focused on disseminating Computer Science education in rural Georgia, enabling students to leverage CS to address local challenges. Additionally, developed an AI and drug awareness curriculum for the local school district. Organized a summer program in collaboration with leading postsecondary institutions, providing research opportunities to 70 students at no cost, delivering educational value exceeding $500,000.

SADD
National Leadership Council **2022-Present**

Organized over 20 large-scale events, including member meetings, service projects, and social activities, with over 40 members participating in each event. Selected as one of approximately 20 students from a membership of 400,000 to represent and guide the organization at a national level. Contributed to the organization by producing blog posts, creating media content, and actively serving as a spokesperson for SADD.

BOY SCOUTS OF AMERICA **Atlanta, GA**
Eagle Scout, Senior Patrol Leader **August 2019-Present**

Have been involved for five years and achieved the rank of Eagle Scout in May 2024. Eagle Scout service project involved building an outdoor sensory path designed to stimulate sensory experiences for students with special needs. Served as Senior Patrol Leader in 2023, the highest-ranking scout position in the troop. Led the troop on 11 campouts and outdoor activities, organized all troop meetings, service projects, successfully executing each event.

GEORGIA INSTITUTE OF TECHNOLOGY **Atlanta, GA**
Machine Learning Research Intern **January 2024-August 2024**

Developed machine learning algorithms to enhance education systems in higher education institutions, contributing to improving the educational experience of over 3,000 students through the creation of an interactive course registration model. Conducted comprehensive literature reviews on machine learning applications in engineering systems. Developed an anomaly detection system for manufacturing devices, leading to the creation of an AI-based IoT safety device for manufacturing environments.

PUBLICATIONS

"Towards Real-Time Polyp Segmentation During Colonoscopy Using an EfficientNet-Based UNet Architecture": Presented and published in 2023 IEEE International Conference on Bioinformatics and Bioengineering (BIBE). Novel approach to colorectal cancer diagnosis using deep learning.
"Producing a biopesticide consisting of multiple poisonous genes integrated into Brassicaceae family plants to prevent loss of commercial crops to diamondback moths": Published in October 2023 Issue of *BioTreks*. The study proposes creating transgenic broccoli plants expressing two insecticidal proteins from Bacillus thuringiensis to combat diamondback moth infestations and prevent resistance.
"Brain-Computer Interfaces for Emotional Regulation in Patients with Various Disorders": Preprint available on ArXiv, in process of publication. Developed a Brain-Computer Interface capable of facilitating emotions in patients with neurological disorders.

PROJECTS

(2024) Physics-Informed Neural Networks for Improved Drug Delivery: Developing a Physics-Informed Neural Network to optimize geometries of microneedles, improving their efficiency during drug delivery. Under mentorship of postdoctoral researcher at Georgia Institute of Technology.
(2024) Summer Internship at Stanford Center for Artificial Intelligence and Medical Imaging: Developed a vision-language artificial intelligence model capable of understanding Chest X-Rays and producing medical reports. Abstract in process of publication.
(2024) Genes in Space Competition: Proposed an experimental method for detecting and degrading carcinogenic silicone compounds about the ISS using a fluorescent biosensor system. Received mentorship from PhD student at Massachusetts Institute of Technology.
(2024-2025) Low-Cost, Novel Interface for Diagnosing Neurological Disorders

AWARDS & CERTIFICATIONS

- **Genes in Space Finalist** (5 selected from over 650 applications), **1st Place at Northwest Georgia Regional Science Fair** (2024), **Best in Category for Behavioral and Social Sciences at Georgia Science and Engineering Fair** (2024)
- **Certifications:** IBM AI Engineering Specialization, TensorFlow Developer Certificate
- **Technical Skills:** Python, C, Arduino, MATLAB, TensorFlow, PyTorch.