Aarush Lanjharia

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EDUCATION

Georgia Institute of Technology (GT), Atlanta, GA

May 2028

Bachelor of Science in Computer Science; Threads: Intelligence & Cybersecurity; Honors Program; GPA: 4.00/4.00

Relevant coursework: Object Oriented Programming, Algorithms, Discrete Math, Applied Combinatorics, Differential Equations

Dunwoody High School (DHS), Dunwoody, GA

May 2024

High School Diploma w/ Honors and Distinction; CTAE Seal in Engineering; Cumulative GPA: 4.38/4.00

Relevant coursework: AP Calculus BC, College Linear Algebra, College Multivariable Calculus, Engineering Applications, AP Physics

WORK EXPERIENCE

Georgia Institute of Technology, Peer-Tutor, Atlanta, GA

August 2024 – Present

- Conducted 50+ one-on-one tutoring sessions for Calculus, Linear Algebra, Combinatorics and Intro to Computing
- Supported 15+ students through tailored support and effective communication

Dynamo Pool Management, Lifeguard, Dunwoody, GA

Summers 2023 & 2024

- Lifeguarded for 200+ hours ensuring guest safety and water-regulation policies through active monitoring
- Ensured chemical levels and cleanliness standards on an hourly basis to prevent transfer of diseases among guests and coworkers

MAD-learn, Summer Intern, Atlanta, GA

May 2023 – August 2023

- Developed app templates and prototypes, enabling students to create custom apps with intuitive interfaces
- Devised SEO improvement strategies for MAD-learn through detailed research and reporting to enhance platform visibility

PROJECTS

RSA Encryption/Decryption Program

December 2024

- Created a JavaScript algorithm for RSA encryption, including prime generation, modular exponentiation, and base conversions
- Explained RSA's mathematical foundation and security, covering key generation, encryption/decryption, and critical vulnerabilities
- Developed an interactive educational tool, enabling users to explore RSA encryption and understand cryptographic principles

Sundial Template Generator

June 2024

- Developed an interactive website using HTML/JavaScript/CSS, allowing users to generate custom printable Sundial templates
- Implemented algorithms to calculate and render accurate sundial designs based on user-inputted or auto-detected location
- Used a hidden HTML canvas to render templates, supporting various design options such as pocket and table sundials

Optimized Perfect Game of Snake

December 2023

- Designed a fail-safe Snake algorithm achieving a perfect game 36% more efficiently than standard Hamiltonian Cycle approach
- Discussed applications in robotic navigation for confined spaces and wildfire spread prediction for critical area protection

LEADERSHIP

Assistant Instructor as 3rd Degree Black Belt, Moohan Martial Arts

May 2021 - August 2024

- Facilitated exercises and led stretches and drills at the start of each practice for 5+ hours weekly
- Coordinated and set up belt testing events for Taekwondo belt certifications bimonthly
- Scheduled group lessons and individual training programs in collaboration with masters

President, Science National Honor Society (DHS)

August 2022 – May 2024

- Organized community service events to clean up and take care of nature in partnership the Dunwoody Nature Center
- Started science bowl club at my school and trained and led a team that placed in the Regional Competition

President, Mu Alpha Theta (DHS)

August 2022 – May 2024

- Organized numerous educational sessions such as Pi Night and Family Math Night
- Educated 150+ elementary school students about STEM approximately twice a semester
- Trained, led and participated in a team that won 1st place in the first annual GA State Calculus Competition organized by GAAPMT
- Won 4th place in the individual GA state Calculus Competition

HONORS AND AWARDS

Mu Alpha Theta High School Scholarship (DHS)	2024	Certificate of Excellence in Mathematics (DHS)	2024
1st Place Dekalb County Technology Fair	2024	2 nd Place in GA Student Technology Competition	2023
Tom Morley Award in Multivariable Calculus (GT)	2023	Tom Morley Award in Linear Algebra (GT)	2022

SKILLS

Technical: HTML/CSS/JavaScript (intermediate), Python (basic), Java (basic), Microsoft Office (intermediate), Google Workspace (advanced) **Additional:** Lifeguarding with CPR and First Aid certified, QPR Suicide Prevention trained, OSHA General Industry certified