

# 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 40+ 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 3<sup>rd</sup> 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 1<sup>st</sup> place in the first annual GA State Calculus Competition organized by GAAPMT
- Won 4<sup>th</sup> 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
1 <sup>st</sup> Place Dekalb County Technology Fair	2024	2 <sup>nd</sup> 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