# Taha Rawjani

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## EDUCATION

# Academies of Technology, Independence High School

Leesburg, VA

3.97/4 GPA, 1540 SAT, Summa Cum Laude

Aug. 2022 - June 2026

Courses: Machine Learning, AP Computer Science, Multivariable Calculus, AP Statistics, AP Physics C

#### Experience

#### Maximus- Software Engineering Intern

Tysons, VA

Building Agentic AI for Scaling Contact Centers

Jun. 2025 - Present

- Created a novel method to classify email intents, reroute emails, and autonomously respond with AI reducing contact center agent resolve times by up to 25%.
- $-\,$  Made the pipeline fully automatable and customizable through a JSON file alongside a GUI configuration tool.
- Pitched final product to Maximus CTO & IT Team, and showcased at an Amazon Web Services conference.

#### ACL Competitive Programming Club- Co-Founder, President

Leesburg, VA

Solving cool problems

Aug. 2023 - Present

- Grew club from 0 to 100+ members, organized teams & logistics for 10+ programming competitions. Led weekly lectures on algorithms and problem-solving. Top 0.1% blogger on CodeForces.
- Organized <u>Academies-IT</u>, LCPS's first competitive programming tournament. Raised \$3000 in prizes & sponsorships, and hosted 120+ attendees. Managed 20+ volunteers & on-site logistics.

## Independence Science Olympiad- President

Brambleton, VA

Science is pretty interesting

Aug. 2025 - Present

- Grew club from 30 to 80+ members, organized teams and event testing. Supervised a team of seven captains
- Rookie team of the year ('23), first qualification to States in school history ('24), best team in LCPS ('25), first school trophy ('25), and most medals won individually ('24 & '25).

#### RECOGNITION

#### MobyGlobal: AI Whale Tracking

Oct. 2024 - May 2025

- Developed and tested a real-time AI-powered whale tracking network using 3d-printed buoys (patent pending).
- Used Tensorflow and Pytorch for ML, ESP32 and C++ for buoy systems, and Fusion360 for buoy design.
- Won 4th at International Science & Engineering Fair 2025, and accepted to Sigma Xi IFoRE and IOCMSE

## Competitive Programming

Aug. 2023 - Present

- Codeforces Expert and USACO Gold Division; 1500+ problems solved across AtCoder, Leetcode, USACO, and Codeforces. Top 0.1% blogger on Codeforces.
- 1st place, University of Pennsylvania Philadelphia Classic Fall 2024 programming competition.
- 1st place, Advanced Division Lockheed Martin CodeQuest 2024 Manassas programming competition.

#### PERSONAL PROJECTS

Neo OS

Jul. 2022 - Aug. 2023

- An operating system written from scratch in C++ and assembly, featuring custom drivers, a UNIX-based virtual file system, multithreading support, and an interactive shell with a simple scripting language (TahaScript).
- Programmed a custom image format (.nic) with 24-bit color support alongside font and VGA drivers
- Created drivers for hard drives (AHCI), floppy disks (FDC), timers (PIT, APIC), and interfaces (PS/2, PCI)

#### Braindead 2DS

Mar. 2023 - May 2023

- A Counter Strike inspired 2D shooter made in bare-bones Java Swing. Includes a custom-built game engine, input system, rendering pipeline, UI Engine, level loader/editor, and a custom map file format.
- Programmed bots that use A\* pathfinding to play alongside the player in a 5v5 CS:GO style game mode.

# SKILLS & INTERESTS

Programming: C, C++, Unity C#, x86 Assembly, Java, Python, JavaScript, HTML/CSS Technologies: Git, Pytorch, AWS (Bedrock, S3, Lambda, EC2), Embedded Systems, Next.js, React Languages: English (fluent), Urdu (native), Spanish (semi-fluent), Arabic (read/write)