Rohan Yelandur

R.Yelandur@gmail.com
Kingwood, Texas 77345
Phone: 346.291.5371

Education

Kingwood High School, Class of 2024
Class rank: 7th out of 647 students   **GPA:** 4.0 unweighted, 5.62 weighted
SAT: 1550

College-level Classes:

AP	Score
AP Computer Science A	5
AP Computer Science Principles	5
AP English Language & Composition	5
AP US History	5
AP World History	4
AP Human Geography	4
AP Physics C - Mechanics	Currently Enrolled
AP Physics C - Electricity & Magnetism	Currently Enrolled
AP Calculus BC	Currently Enrolled
AP Government	Currently Enrolled
AP Economics	Currently Enrolled

OnRamps (UT Austin)
   Quantum Computing
   Computer Science 2
Dual Credit (LoneStar College)
   US History
   English 4

Academic Awards

- National Merit Scholarship Semifinalist, projected Finalist & Scholar
- AP Scholar with Distinction
- All A Honor Roll awards throughout my educational career
- Principal's Award & Teacher's Choice Awards
- Ranked top of the class for mathematics
- 15+ Academic excellence award certificates

Technological Pursuits

UT Austin GenCyber@TACC - Advanced Cybersecurity Camp: July 2023
- Chosen candidate from nationwide applicant pool.
- Learned from UT professor. Collaborated with my team on cybersecurity research. Utilized Raspberry Pi 400s running Kali Linus to write programs related to web scraping, network analysis, and hashing. Designed network topologies while learning about ethical principles and IT policies. Researched and presented on solution for simulated cyber-threat scenario.

Cyberstart America - Nationwide Cybersecurity Competition   2021 - Current
- Ranked top 500 out of 45,000 college & high school students in nationwide cybersecurity competition.
- Named "National Scholar & Finalist".
- Awarded the highest Gold Badge, and won a $3000 scholarship.
- Solved 150+ CTF cybersecurity challenges in fields like web architecture, cryptography, programming, digital forensics, and network exploitation.
- Wrote hundreds of python programs to solve puzzles ranging from automation to server manipulation.

SANS Foundations SEC 275 - Cybersecurity Certification Course   2023
Topics Covered: Computer Hardware, Data and File Storage, Cloud Computing, Operating Systems, Virtualization, Linux (environment, commands, architecture & components), Networking, Servers, Programming, SQL, Windows CLI, Encryption, Reconnaissance, Forensics, Exploitation, Privilege Escalation, Lateral Movement, Exfiltration.

Activities

Boy Scouts of America   2017-2022

Eagle Scout Rank
- Senior Patrol Leader – led troop at campouts, service events, meetings, and summer camps.
- Gold Palm Award
- 30+ Merit Badges
- Eagle Project: led volunteers to improve the infrastructure of Jesse H. Jones wilderness park.
- 160+ Volunteering hours helping my community (disaster relief after Hurricane Harvey, helping local church, donated time and effort towards helping Veterans, volunteered in other Eagle Projects).

Science Olympiads   2017 - Current
President of Kingwood High School team –
- Led 90+ team members at more than 15 tournaments, weekly meetings, volunteering events, & practice sessions.
- 2x State Medalist, 5x Regional Medalist, 10+ Invitational Medals
- Founded K-12 outreach program to encourage participation in local schools. Presented event information and led hands-on demonstrations for students.
- Raised funds by reaching out and connecting with local businesses.
- Managed club website.
- Coded Programs to aid the team in various events:
- Developed Java program to solve a mathematical puzzle where the goal is to find valid combinations of 4 digits and binary operations that yield a result between 1 and 100. The program generates permutations of digits and operations to construct Reverse Polish Notation (RPN) sequences. A stack-based approach is employed to handle the evaluation of these sequences. The output is a formatted list of solutions for the specified number set.
- Developed Java program to decrypt and encrypt text for the CodeBuster event. Capable of manipulating text through the Cesaer, Atbash, Baconian, & Morse ciphers.

Chess Club   2020 - Current
Founder & Vice President
- Wrote club constitution & bylaws
- Led team at district competitions
- Won $800 district grant for club
- Collaborated with Chess Lab Nonprofit to provide free lessons at local schools
- Designed and managed social media account that increased membership by %800
- Managed club website
- Developed Java program to teach beginners rules, how each piece moves, and opening ideas.

Asian Culture Club   2020 - Current
President
- Led students to bring awareness about Asian culture at Kingwood High School, where Asians make up less than 5% of the student body.
- Organized weekly presentations, fairs, games, & exhibitions of traditions and delicacies.
- Managed club website.

"Mustang Roundup" Freshman Orientation Committee - Executive Council Leader   2021 - Current
- Planned every aspect of orientation event for incoming Freshmen to Kingwood High School.
- Organized and guided a group of 75+ volunteers through leadership strategies.
- Led 700+ Freshman each year through tours, activities, and speeches.
- Volunteered throughout the school year to help acclimate new students and introduce them to clubs, courses, and sports.

Computer Science Honor Society   2022 - Current
- Volunteered at STEM fairs; tutored students in coding.
- Built machine learning model with my team.
- Competed in Computer Science UIL tournaments.
- Competed in cybersecurity CTF events (PICO, Pointer Overflow, Ready Player 50).

National Honor Society   2022 - Current
- Earned Outstanding Leadership Award for volunteering work and fundraising.
- 70+ hours of volunteering at the Houston Food Bank, HAAM, and around the community.
- Participated in leadership seminars and service events.

Track & Field   2021 - 2023
- Competed in 110m & 300m hurdles, sprints, and high jump.
- Volunteered at summer youth camps.
- Represented school at district meets; 10+ medals.
- Learned time management as a student-athlete while training 12 hours a week.

Robotics Team   Ongoing
- Collaborated with the team to draft a design and build a functioning robot for competition.
- Programmed autonomous and manual robot systems using Simulink.

Work Experience
Mathnasium Tutoring Center, **Lead Instructor**   June 2023 – October 2023
- Supervised & trained other instructors.
- Taught math up to pre-calculus & SAT/ACT level.
- Managed opening, closing, and run-time of the tutoring center.
- Honed interpersonal skills while interacting with clients, parents, and students.
- Designed interactive robotics lessons for students.

Personal Tutor   Test preparation, homework help, and tutoring for middle and high school students.

Projects
Quantum Key Distribution
Developed Python program to simulate Quantum Key Distribution (QKD), a secure communication method that implements components of quantum mechanics. Measures the secure and stolen key rate to determine security. Wrote project report on the BB84 cryptography scheme, general and custom QKD protocols, and an analysis of security.

Bell State Measurements
Developed Python program implementing the Qiskit library which simulates the Bell State Measurement of two quantumly entangled qubits. Plots collected data on a histogram and visualizes the state vectors using q-sphere.

Time Complexity
Developed Python program to track the time complexities of various sorting algorithms when faced with different types and sets of data.

Democracy Visualizer
Developed Java program to visualize levels of democracy in every country worldwide. Tracks the correlation between political participation and regime types in these countries.

Internet & Income Correlation
Developed Java program to analyze the percentage of countries with access to the internet, and the income levels of those countries.

Natural Language Processing
Developed Java program to analyze structures of poems and the meaning of their words. The output is a numerical value representing the sentiment (how positive/negative the wording of the text is).

Image Manipulation
Developed Java program that manipulates individual pixels of an image to manually apply custom filters.

Student Education Platform
Developed app in JavaScript that educates students about GPA , College Board, extracurriculars, and my high school's courses.

Video Game Finder
Wrote app in JavaScript that find the best games to play based on their console, genre, age, and price range.

Song Finder
Wrote app in JavaScript that searches Spotify for songs the user may like based on various factors.

Flashcard App
Wrote app in JavaScript that manages flashcards and helps the user study.

Maze Horror Game
Collaborated with other developers and graphic designers to create a maze horror game. Wrote a ray casting algorithm to create a 3D landscape in a 2D game engine. Wrote a recursive algorithm to randomly generate a new maze each time the player restarts. Created custom particle effects and user interface.

Pizza Duck Game
Used Unity to create a game where the player is a duck who fulfills orders at a pizza shop. Created custom 3D models and learned about rendering, shadows, and textures. Recorded custom sound effects and made my own background music.

Skills

Java
JavaScript
Python
Web design – Html, CSS
Linux – Ubuntu, Kali
Unity 5 game development
GitHub

Photo and video editing
Microsoft Word, Excel, PowerPoint
Adobe Animate
100+ WPM typing
CAD
Microsoft Windows – 10, 11