

Hamza Haque: High school senior committed to pursuing a STEM and Software Engineering career.

Hamza Haque  
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## SKILLS:

Java, Python, C#, Javascript, MySQL, Software troubleshooting, Adobe Premiere Pro, Audio Editing, Fusion 360, Mathematics, Library services, Tutoring, English, Spanish, Urdu, Hindi, AWS, Firebase, Android App Development

## EDUCATION:

### Plano East Sr High School

**Expected Graduation: 2024**

- AP Computer Science A, AP Calculus BC, AP English III, AP Environmental Science, AP Physics C, AP US History

### Collin College

**Non-Degree Seeking**

- Multivariable Calculus, Linear Algebra, Discrete Math, Differential Equations

## PROFESSIONAL EXPERIENCE:

### Instructor | Kumon

**September 2021 – Present**

- Graded reading and math homework and classwork assignments.
- Instructed students on math and reading curriculum at least one year above grade level.

### Curriculum Writer | EV3EVERYWHERE

**July 2021 – Present**

- Wrote Python curriculum material for EV3EVERYWHERE, a non-profit organization promoting global STEM education access.

### Google CodeNext Engineer | Google

**Jan. 2021 – June 2021**

- Learned about game design and working with the Phaser framework in Javascript.
- Utilized Python, Linux, source control, and programming with the Raspberry Pi.
- Developed skills in communication, teamwork, creative thinking, and leadership.

### IT Support Technician - Intern | Dallas Independent School District

**June 2021 – July 2021**

- Selected as the only high school intern for 2021.
- Assisted technicians on-site and in repair centers with computer repair and troubleshooting.
- Learned about customer service, problem-solving, and adaptability.

### Robotics Team Software Lead | T.H. Williams High School

**August 2021 – May 2022**

- Developed an autonomous and driver-controlled system for the robot to operate during competitions.
- Assisted in building the intake and outtake system for the robot's driver-controlled period.
- Automated development and planning for the robot's path during its autonomous period.

### Cyber Security Research Intern | University of Texas at Dallas

**May 2022 – July 2022**

- Developed skills in cyber security related to secure database management systems, secure cloud computing, and utilizing machine learning for malware detection.
- Created a MySQL and Python project to create a secure database management system with a query handler.
- Used Prolog for logic programming and explainable AI.

### Governor's Champions' Academy Student | Governor's Champions' Academy

**July 2022 – Aug 2022**

- Developed skills in hardware security and basic digital logic design.
- Created a locking segment insertion bit network and verified it, being specific about constraints.
- Presented research on LSIBs and PMODs in a group.

## VOLUNTEER EXPERIENCE:

### Volunteer | American Red Cross

**September 2020 – Present**

- Worked with a team of volunteers to coordinate a social-media campaign highlighting the impact of war on children's education and international humanitarian law.
- Volunteered in various projects, including a food drive for veterans and collaborations with other organizations.

**Webmaster | PESH Key Club****August 2022 – May 2023**

- Created a website for my school's Key Club chapter.
- Aided in volunteering projects such as Paloween and Kids Against Hunger.
- Coordinated volunteers for other events.

**PROJECTS:**

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**Lunar Groundtracking using Keplerian Elements | Science Fair****Nov. 2021 – May 2023**

- Utilized Python to create a computer program with a graphical user interface that predicts the groundtrack of a satellite's orbit around the Moon using its classical Keplerian elements
- Utilized Git and GitHub for source control and code collaboration and AWS for cloud capabilities.
- Developed a method of projecting an object's point on an equirectangular Lunar surface map.

**AP Computer Science Project****March 2021**

- Created a color palette generator using high-level programming concepts in Javascript, such as concatenation, ternary operations, and decimal to hexadecimal conversion to generate random 16-bit colors.

**Google CodeNext Connect Final Project****June 2021**

- Wrote an alarm on the Raspberry Pi using Python.
- Worked with local time zones and managed time in Python using its built-in library.
- Developed a method of managing time locally.

**TrashScan | Congressional App Challenge****June 2023 – Present**

- Created an Android application to track and clean up trash in a user's local area.
- Utilized Firebase and the Google Maps API.
- Worked with a team and collaborated on a large codebase.

**Trustice | Personal Project****June 2022 – Present**

- Created an iOS application to track political proceedings in state and national legislatures
- Utilized public APIs for congressional and state legislatures along with web-scraping
- Worked with a team and collaborated on a large codebase.