Adam Mohiuddin
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EDUCATION

Senior – Westlake High School, Austin, TX (Aug 2021 to May 2025)

- **GPA: 3.8/4.0 & 5.7/6.0 (Weighted)**
- **SAT: 1470/1600 (730 – Reading & Writing, 740 – Math)**
- **AP Scholar with Distinction**: Computer Science A, Calculus AB, Physics 1, Human Geography, World History
- **Current AP Coursework**: Computer Science Principles, Calculus BC, Statistics
- **Languages**: English, Spanish

SUMMARY

- High school senior passionate about applying innovative technologies to solve real world-problems at scale.
- Aspiring Software and Machine Learning engineer, selected into the esteemed 'Academy for Machine Learning' and the 'High School Research Academy (HSRA)' at the University of Texas at Austin.
- 4 years of FIRST Robotics Competition, World Championship division semifinalist.
- Solopreneur experience - Founder of ScholarSync, an app that consolidates scholarships from various sites into one app.
- Chief Technology Officer of EcoCents: product aimed at eliminating littering by incentivizing recycling through digitized waste bins.
- Co-led FIRST Access, a program that enables students with cognitive disabilities to engage in STEM.

SKILLS

Programming Languages	**Tools**	**Interests**	**Leadership**
Java, C++, Python,	Linux, Xcode, GitHub, GitLab,	Mobile App Development,	Entrepreneurship
SQL, Swift, R,	RStudio, LabVIEW, Glide,	AI/ML, Web scraping,	People/Project Management
C#, JavaScript	Firebase, Benchling, Figma	Exploratory Data Analysis	Mentorship

EXPERIENCE (Work & Volunteer)

Student - Academy for Machine Learning – The University of Texas at Austin (Jul 2024, 84 hours/week, 1 week/year)

- Selected to participate in the 'Academy for Machine Learning' residential program at the Department of Computer Science at the University of Texas (UT) at Austin.
- Explored **Machine Learning** (ML) concepts, developing ML models in **Python** to classify handwritten images and drive gameplay in "Pac-Man".
- Discussed the ethical considerations involved in ML, as well as experienced life on campus.

Researcher - High School Research Academy (HSRA) – The University of Texas at Austin (Jun 2024–Jul 2024, 16 hrs/week, 5 weeks/year)

- Selected into the High School Research Academy (HSRA) program at the University of Texas (UT) at Austin. Worked with UT Research faculty in the 'Environmental Chemistry & Exploratory Data Analysis' department.
- Conducted research on the impact of cloud cover on emergence patterns of bats**.** Worked to find explanations for irregular evening bat emergence from underneath Congress Avenue Bridge in Austin.
- Collected, cleansed and analyzed bat emergence, cloud cover, temperature, and humidity data using **R** (statistical and visualization language) and **RStudio** (graphical interface). Learned and utilized non-parametric correlation tests for statistical dependence, such as the **Kendall's Tau Rank Significance Test**.

Founder - ScholarSync (Non-Profit) – Solopreneur Project (Dec 2023–present, 4 hrs/week, 40 weeks/year)

- Launched ScholarSync: an app that matches scholarships to scholarship seekers based on profiles. The objective is to enable students from underprivileged communities to find educational scholarships easily without paying for a scholarship consultant.
- Designed and developed the iOS app utilizing **Xcode**, **Swift** for web scraping, **SwiftSoup** for HTML parsing and **Firebase** for efficient cloud data management. Deployed on the App Store, handling legal, security, and compatibility obstacles.
- Published "Exploring the Use of Web Scraping in Mobile Applications" on Medium, and authored a research poster.

Chief Technology Officer - Business Incubator – Westlake High School (Aug 2023–May 2024, 4 hrs/week, 33 weeks/year)

- Collaborating with a 6-person team, I architected the technical aspects of EcoCents: **product aiming to eliminate plastic littering by incentivizing recycling by offering store discounts.**
- Designed **"reverse vending machine"** with an **app** companion that rewards users with "points" for every item they recycle.

- Integrated barcode scanner technology to track recycled bottles, ensuring accuracy and efficiency in the recycling process.
- Deployed the solution at school and tested successfully with **over 70 users.**
- Presented EcoCents at the 'Texas High School Ideas Challenge' at Texas A&M University, won the "Honorable Mention" award.

High School Member - AI Health Lab – The University of Texas at Austin (Feb 2024–present, 1 hr/week, 12 weeks/year)
- Partnered with professors from the UT Health department on applying **Gen AI/LLM techniques to their research projects.**
- Reading of published articles and understanding how Gen AI works at the intersection of drug discovery and healthcare.
- Understanding health risk prediction and disease progression models, working under UT graduate students.
- Analyzed healthcare data using Python and Jupyter notebooks on AWS cloud infrastructure.

Student - Shadowing Assignment – Amazon Web Services, Austin, TX (Jun 2022–Aug 2022, 40 hrs/week, 10 weeks/year)
- Experienced and understood the role of a software engineer by shadowing a product development team.
- Learned about the **'Software development life cycle'** and how products go from concept to launch and post-launch support.
- Understood the basics of Cloud services and how they are used by customers of AWS.
- Ran tests to evaluate vector processing within the **Amazon Aurora database** using PGVector.

Software Member - FIRST Robotics Competition – Westlake High School (Aug 2021–present, 8 hrs/week, 30 weeks/yr)
- Represented school Robotics team as a **programmer for 4 years**. Programmed powerful robots to surpass competition challenges and contributed to numerous accolades and District Event victories.
- Lead role in conceptualizing, developing, and integrating an LED signal system which enabled strategic **human-robot interaction** during matches. Implemented **computer vision** for object, color and AprilTag detection, enhancing autonomous capability.
- Utilized tools such as **LabVIEW, REV, Python, LimeLight vision and OpenMV** to develop and implement teleoperated and autonomous functionality.

Student - Research Mentorship Program – University of California, Irvine (Dec 2022–Jun 2023, 1 hr/week, 25 weeks/year)
- Worked with a team of researchers to study declining memory in older adults with mild cognitive impairment (MCI), Alzheimer's, dementia, and other neurological diseases affecting memory formation, recognition, and recall.
- Attended weekly team meetings and organized individual meetings with undergraduates to explore **computational techniques for graph modeling and spacing.**
- Learned various statistical, neuroscientific, and psychological techniques for understanding and processing data using tools such as **MATLAB and Python.**

Volunteer - Technology Managing Assistant – Delegates Beyond Borders (Oct 2022–Feb 2023, 8 hrs/week, 19 weeks/year)
- Recognized for exceptional contributions and unwavering commitment as the Technology Managing Assistant for Delegates Beyond Borders LLC and the Fifth Annual Simulation of the International Conference of Model United Nations (**SICMUN** V).
- **Assisted in the development and maintenance of the website** sicmun.org, making it a lively center for information.
- Utilized graphic design tools such as Photoshop and Canva to create visually compelling and captivating content.
- Demonstrated a thorough understanding of social media strategy and audience engagement.

Volunteer - FIRST Access – Westlake High School (Oct 2023–present, 2 hrs/week, 10 weeks/year)
- Co-led the 'FIRST Access' program that **enables students with cognitive disabilities to engage in STEM/Robotics activities.**
- Mentored students in STEM fundamentals to mold abstract thoughts into creative ideas, teaching principles of innovation and problem-solving.
- Provided a platform for **inclusivity and empowerment through robotics, science, and technology**, fostering a sense of achievement and recognition.

Volunteer - Islamic Center of Lake Travis – Austin, TX (Oct 2021–present, 3 hr/week, 24 weeks/year)
- Facilitated fundraising events and youth camps at the local Mosque.
- Delivered to Mobile Loaves & Fishes to provide meals to the homeless.

- Mentored Sunday School Quran readings and assisted in information sessions

Member - American Red Cross Club – Westlake High School (Sep 2021–May 2023, 1 hr/week, 10 weeks/year)
- Participated in fundraising events and campaigns to support Red Cross initiatives and humanitarian relief efforts.
- Distributed essential COVID-19 items to patients in need, helped organize blood drives, food bank donations, books, and shoe drives.
- Raised awareness about public health and safety measures through school and social media.

Member - Computer Science Club – Westlake High School (Oct 2022–present, 1 hr/week, 30 weeks/year)
- Active participant in meetings, contributing to discussions about recent developments in artificial intelligence and machine learning.
- Collaborating with fellow members on coding projects and problems to explore practical applications of computer science concepts.

Member - Mu Alpha Theta – Westlake High School (Aug 2023–present, 1 hr/week, 9 weeks/year)
- National Math Honor Society composed of students who have demonstrated proficiency in advanced mathematics.
- Members must have completed the equivalent of two years of college preparatory mathematics.
- Members must have at least a 3.0 math grade point average.

REFERENCES
- Erik Qualman (Author, Speaker, Professor), Northwestern University, equalman@equalman.com, 404-808-4561
- Mr. Jeffrey Nixon (Business INCubator Teacher), Westlake High School, jnixon@eanesisd.net, 512-626-1240
- Mr. Lynden Rosier (Computer Science Teacher), Westlake High School, lrosier@eanesisd.net, 512-732-9280