

- Aspiring Electrical and Computer Engineering student with a **1570 SAT**, **5.49 weighted GPA**, and a passion for designing practical engineering solutions
- Published student researcher applying machine learning and optimization to address real-world traffic congestion, complemented by multiple engineering internships across technical disciplines
- Completed **MITx** coursework in Electrical Engineering covering circuit analysis and digital electronics
- Ranked among the **top 25** junior tennis players in Texas since age 10; two-year varsity tennis captain
- Founder and Director of the Austin branch of **First Racquet**, leading volunteers, fundraising initiatives, and international tennis equipment donations benefiting underserved youth

EDUCATION

- Grade 12 student at Westwood High IB World School, Austin, TX (2026–27)
- SAT: 1570 1ST and only attempt (2025)
- GPA: 3.93/4.0 UW | 5.49/5.0 W (2024)
- Endorsements: Computer Science, Business Management, Multidisciplinary

Current Advanced Coursework	Completed AP Exams (Score)
AP Physics C (Mechanics & E&M)	AP Calculus BC (5)
AP Chemistry	AP Precalculus (5)
AP Economics (Micro & Macro)	AP Physics 1 (5)
AP Government	AP Statistics (5)
Multivariable Calculus	AP Human Geography (5)
Digital Electronics	AP Computer Science A (4)
AP English Literature	AP English Language (4)

AWARDS AND HONORS

- Team Captain and played Line-3&5, Westwood High Varsity Tennis, Texas State Finalist (Oct-2025)
- Played Line-1 & 6, Westwood High Varsity Tennis, **Texas State Champion** (Oct-2024)
- Youngest player to represent Line 2 for Round Rock High School Varsity Tennis Team (2023–24)
- Received partial equipment sponsorships from Adidas, Yonex, and Wilson
- Multiple USTA Tournament Sportsmanship Awards
- Consistently ranked among the **Top 300 USTA junior players nationally**

RESEARCH AND TECHNICAL PROJECTS

Machine Learning Research: Adaptive Traffic Congestion Optimization

- A. Parikh, “Reduction of Red Light Waiting Times Using An Adaptive Traffic Optimization Model”, in Oxford JSS journal publication
 - Developed a simulation framework to optimize traffic signal timing using machine learning.
 - Developed and evaluated adaptive traffic signal timing strategies using simulated traffic data.
- Designed and built embedded hardware projects using Raspberry Pi, digital logic, sensors, and programmable electronics, reinforcing an interest in embedded systems and circuit design.
- FIRST LEGO League; built and programmed a robot from scratch for FLL competition (2019–20)

PROFESSIONAL EXPERIENCE

- Director, First Racquet NGO, Austin Branch (2022-Present)
- Founded and led Austin branch of an international tennis-focused nonprofit
 - Managed volunteers and organized charity events supporting underprivileged children in Angola
- MySafeSpace, Remote Role; Product/UI Intern (2025–26)
- Developed and presented a UI prototype directly to the founder
- AumFresh, Vadodara; Engineering & Operations Intern (2024–25)
- Supported engineering, quality assurance, and export documentation for commercial freeze-dried food production
- MechAir, Vadodara; Engineering Intern (2023–24)
- Supported engineering design and product development activities
- Summer Tennis Camp Coach, Austin, TX (2025–27)
- Trained beginner and intermediate players in fundamentals and advanced techniques
 - Designed structured sessions to improve consistency and match readiness
- Tennis Coach, Austin, TX (2023–27)
- Coached junior players in tennis fundamentals, footwork drills, and fitness training

TECHNICAL SKILLS

- Programming: Python Hardware: Raspberry Pi, Digital Logic Engineering: Circuit Analysis, Machine Learning Tools: Circuit Simulation

TECHNICAL COURSEWORK

- MITx 6.002x – Introduction to Electrical Engineering (2025–26)
- MIT Beaver Works Summer Institute (BWSI) Prerequisite Coursework (2025–26)

EXTRACURRICULARS

Leadership

- Team Captain, Westwood High School Varsity Tennis Team (2025–26)
- National Junior Honor Society Member (2022–23)
- ~~Boy Scouts / Cub Scouts~~ (2013–20)

Sports

- Varsity Tennis (2023-27)
- Taekwondo Black Belt by Americal Taekwondo Association (2016-20)
- Track & Field, 2nd in school and 9th in district (2022-23)

STEM & Technical

- Competitive Rubik's Cube Solver (Personal Best: 32 seconds) (2022-Present)
- UIL Ready Writing: 1st in School, 5th in District (2019–20)

Music

- Violinist in four years of Orchestra (2021–24)
- Recreational Pianist (2016–20)

Community Service

- First Racquet (Austin Director): Expanded the nonprofit to Austin, raised over \$2500 and collected 300+ tennis equipment donations for underserved youth in Angola, Africa. (2022-Present)
- National Junior Honor Society: Completed 80+ volunteer hours through school for community service initiatives
- Organized annual charity tennis and pickleball fundraiser
- Senior Care Volunteer, The Waterford at Round Rock (2020–23)