

Sahir Lakhani

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EDUCATION

The University of Texas at Austin

Overall GPA: 3.73/4.00

Master of Science in Engineering (Manufacturing and Design)

May 2028

Bachelor of Science in Mechanical Engineering

Minor in Computer Science

Study Abroad – Seoul, South Korea

- Relevant Coursework: Additive Manufacturing, High Throughput Nanopatterning, Dynamic Systems and Controls, Heat Transfer, Machine Elements, Fluid Mechanics, Materials Engineering, Dynamics, Thermodynamics, Mechanics of Solids, Statics, Engineering Design Methodology, Engineering Computational Methods
- Scholarships: Robert C. Olsen Endowed Presidential Scholarship, National Dell Scholar, Samsung Scholarship

EXPERIENCE

Lockheed Martin

Quality Engineering Intern

June 2026 – August 2026

- Managed \$1.9 million of production-critical tools and applied Lean Six Sigma principles to streamline calibration workflows, eliminating 200 hours of backlog in 6 weeks
- Reduced asset turnaround time from 3 months to 7 days by leading a backup effort for non-redundant assets, securing over \$400,000 for new lab equipment
- Facilitated a cross-functional RCCA analysis of more than 100 torque-tool models, diagnosing failures and implementing corrective plans projected to reduce recurring failures from 28% to 9.5%

Longhorn Racing Solar (FSGP and ASC)

Aerodynamics System Lead

August 2026 – Present

Aerodynamics Engineer

September 2025 – August 2026

- Improved aerodynamic efficiency through ANSYS Fluent simulations, reducing drag coefficient area (CdA) by 50%
- Utilized iterative design to create 7 versions of the next-generation aeroshell using surface modeling in SolidWorks
- Validated structural integrity of mechanisms using manual calculations, ensuring a minimum factor of safety of 2.0
- Performed carbon-fiber layups for the vehicle shells, improving load-bearing strength while minimizing weight

LPEG Incorporated

Operations Manager

May 2025 – August 2025

- Developed software to resolve lottery and scratch-off discrepancies, recovering \$10,000 lost to misplaced funds
- Oversaw the transition to paperless systems, enabling real-time revenue tracking for better decision-making

PROJECTS

Longhorn Racing Solar (FSGP and ASC)

Solar Car Mounting Mechanisms

September 2025 – May 2026

- Designed a bottom-shell-to-frame mounting mechanism that uses custom contoured platforms to match the curvature of the solar vehicle shell and distribute loads
- Developed a top-shell-to-frame mechanism that constrains shell motion in all critical degrees of freedom while preserving quick access to internal components
- Leveraged SolidWorks 3D CAD to integrate mounting hardware with chassis hardpoints and composite layups, ensuring manufacturability and assembly clearance

COMMUNITY INVOLVEMENT

UT For Me – Powered by Dell Scholars

Lead Dell Scholar Ambassador

August 2024 – Present

- Directing end-to-end event coordination, ensuring a seamless experience of over 300 participants per event
- Conveying student concerns to full-time staff, ensuring timely intervention and support for at-risk students
- Trusted by supervisors to mentor 7 new ambassadors, upholding high performance and program standards

Troop 758, Boy Scouts of America

Eagle Scout and Senior Patrol Leader

August 2016 – January 2022

SKILLS

Technical Skills: SolidWorks 3D CAD and FEA, ANSYS CFD, Lockheed Martin Metrology: Precision Dimensional Calibrations, Machine Shop Certification, MATLAB, Python, Java, SQL, C#, Microsoft Office Suite

Soft Skills: Collaboration, Problem-Solving, Leadership, Adaptability, Attention to Detail