TEJAS SACHDEVA

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EDUCATION

The University of Texas at Austin – Austin, TX
Bachelor of Science in Mechanical Engineering [GPA: 3.73] **Aug 2023 – May 2026**

Purdue University – West Lafayette, IN
First-Year Engineering; Expected BS in Mechanical Engineering [GPA: 3.90] **Aug 2022 – May 2023**

EXPERIENCE

General Motors – Warren, MI **May 2025 – Aug 2025**
Service Release Engineering Intern (Chassis, Body Exterior)

- Identified part commonality across 2023 and 2025 Equinox/Terrain models using Teamcenter, enabling platform-wide consolidation and BOM simplification
- Conducted structural and serviceability analyses in HyperWorks Altair to pinpoint design differences and recommend targeted improvements
- Delivered $700K+ in cost savings by reducing duplicate components and aligning designs with long-term service and manufacturing goals

Kovar Group: Selective Laser Flash Sintering – Austin, TX **Aug 2023 – Jan 2025**
Undergraduate Research Assistant

- Facilitated research through hands-on involvement in experiments characterizing diverse ceramic materials, utilizing an ultrasonic laser system for Selective Flash Laser Sintering
- Analyzed results from MTS Sintech 2G machine, precisely measuring distances between indents and fiduciary marks, increasing material performance by 57%

Parker Wellbore – Houston, TX **May 2024 – Aug 2024**
Technical Services Intern

- Optimized structural component efficiency on Parker Wellbore rigs by analyzing Technical Service Reports for drill string mechanics, BOP systems, and annular lift-ring assemblies to improve system reliability
- Engineered 3D models and technical drawings in SolidWorks and AutoDesk Mechanical; conducted FEA (linear static, modal, fatigue) to determine Factor of Safety (FOS) and Working Load Limits (WLL)
- Defined FEA parameters per API, ASME, and AISC standards; selected materials using Charpy V-notch tests to minimize fluctuation in Von-Mises stress under impact loading scenarios, achieving a 65% reduction

Chortos Lab – West Lafayette, IN **Aug 2022 – May 2023**
Undergraduate Research Assistant

- Designed and prototyped multi-filament syringe holders using Autodesk Fusion 360 for 3D printer compatibility
- Acquired data to validate extrusion accuracy by employing NI DAQ and LabVIEW; increased precision by 20%
- Automated G-code creation using a Python script integrated with Cura for efficient printing of complex geometric shapes

LEADERSHIP AND COMMUNITY INVOLVEMENT

First-Year Experience (UT Austin) – Austin, TX **May 2024 – Jan 2025**
First-Year Interest Group (FIG) Mentor

- Mentored and led a cohort of 20+ students, executing academic development programs and increasing first-year engagement and retention metrics

American Society of Mechanical Engineers (Purdue) – West Lafayette, IN **Oct 2022 – May 2023**
Treasurer

- Managed $20K+ in funds, secured external sponsorships, and provided financial oversight for engineering competitions and initiatives

Student Government (Purdue) – West Lafayette, IN **Oct 2022 – May 2023**
Board of Directors

- Directed a mental health campaign engaging 6,000+ students; partnered with 10+ campus organizations to coordinate MHAW (Mental Health Awareness Week)

ADDITIONAL

- **Technical /Computer Skills**: NI DAQ, LabView, Ulti Maker Cura, SolidWorks, Autodesk Fusion 360, AutoCAD Mechanical, ANSYS Workbench, SIEMENS NX, Teamcenter, DFSS Green Belt, BEC Reduction
- **Interests:** Dance (Hip-Hop Freestyle – 15 years' experience), Tennis (Varsity Team Captain), Baking, Traveling
- **Honors:** Richard Douglas and Judith Watson Perkins Endowed Presidential Scholar, Dean's List & Semester Honors x 4