

AKASH JAPE

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EDUCATION

Bachelor of Science in Mechanical Engineering

December 2026

The University of Texas at Austin, Materials Science Concentration, GPA: 3.86/4.00

Relevant Courses: Design Methodology, Machine Elements, Materials Processing, Sketching for Product Design, Dynamic Systems & Controls, Mech. Behavior of Materials, Machine Tool Operations, Mechatronics, Heat Transfer, Fluid Mechanics

EXPERIENCE

SharkNinja – Needham, MA

May 2026 – August 2026

Product Design Engineering Intern, Advanced Development

- Built 6 ergonomic hand-fit models for P1 and P2 builds on 2-3 day CAD-to-prototype turnarounds using FDM and SLS; presented results in weekly design reviews to down-select concept direction
- Developed a user-operated retention mechanism for a rotating and translating shaft; generated 4 concept variants and identified leading path via user demos with Product Integrity (PI) and Development (PD) teams
- Prototyped a mechanical safety interlock for a 3-part assembly; incorporated poka-yoke methodology to guarantee correct installation; laser-sintered nylon mechanism validated by PI and PD teams for P2 assembly
- Led product ideation for 2028 workstreams; analyzed desirability-feasibility-viability via competitor benchmarking, culinary R&D, and market research; drafted product pitch and received go-ahead on further development

Qorvo – Richardson, TX

May 2025 – August 2025

Process Engineering Intern

- Applied 5S methodology to design and additively manufacture ESD-compliant thermoplastic tooling; validated improvements through user testing and time-motion studies, reducing excess movement and cycle time
- Led DoE-driven investigation of epoxy dispensing defects in automated lid-attach assembly; isolated needle geometry as root cause and validated improvements via optical metrology, reducing dispense error by 96%
- Designed automated engineered fluid dispensing (EFD) process replacing manual epoxy application for scalable production; validated process equivalence using cross-sectioning, optical measurement, and JEDEC MSL testing

Texas Inventionworks – Austin, TX

January 2024 – Present

Vice President • Prior Roles: Operations Executive Lead, Student Technician

- Led 60+ staff across operations, training, and technical services supporting 3,000+ students; scaled access to manufacturing and rapid prototyping resources including machining, additive manufacturing, and laser cutting
- Developed and taught mechanical/electrical hardware workshops guiding students through full product design cycles

Nanoscale Design and Manufacturing Laboratory – Austin, TX

June 2024 – January 2025

Undergraduate Research Assistant – Micro-scale Selective Laser Sintering

- Designed SLA resin reservoir for leak-free microparticle suspension storage, selecting resin over FDM for non-porous sealing properties and simplified fabrication; reduced refill time and enabled faster stage changes
- Developed Python-LabVIEW integrations to automate sinter pattern generation and synchronize DMD output; improved process consistency and reduced setup time

DESIGN PROJECTS

National Medical Device Make-A-Thon – San Antonio, TX

February 2024

Second Place – Women's Health Challenge

- Identified redesign opportunity for gynecological tool through research on patient discomfort; analyzed prior art and existing improvement efforts to inform design; developed SolidWorks model and FDM-printed functional prototype

SKILLS

Mechanical Design & Fabrication: Concept Ideation, Human-Centered Design, DFM/DFA, Rapid Prototyping, Machining, Laser Cutting, Soldering, Tolerance Analysis, GD&T, EFD tooling, Carbon Fiber Assembly

Process & Manufacturing: DoE, Lean Principles, 5S methodology, A3 problem solving, Root Cause Analysis, Failure Analysis

Software: SolidWorks, Python, LabVIEW, MATLAB, Java (Oracle SE 8 Certified), Jira, Microsoft Suite