

Aarya C. Shah

(314) 800-3412 | aaryacshah@gmail.com | linkedin.com/in/aaryacshah

Education**Texas A&M University | College Station, TX***August 2021 – May 2025*

B.S. Mechanical Engineering, GPA: 3.87

Skills**Tools:** SolidWorks, Siemens Suite (NX, Teamcenter, Femap), MATLAB, Python, ANSYS, Sky Civ, Autodesk Fusion 360, Arduino, Microsoft Suite (Excel, PowerPoint, Word)**Skills:** Rapid Prototyping, Cost Analysis, Design of Experiments, Agile Scrum, Lean Startup, Six Sigma**Work Experience****Collins Aerospace | Mechanical Design Intern | Lenexa, KS***Summer 2024*

- Designed and printed prototype hardware for timely dimensional checks for new product developments.
- Tested and analyzed supplier prototypes for defects and accuracy to ensure product consistency and quality.
- Notified customers of design and supplier changes to maintain clear communication throughout the product life cycle.
- Ensured new designs and design changes met FARs by writing and conducting engineering testing procedures.

Naval Surface Warfare Center – Crane Division | X-Force Fellow | Crane, IN*Summer 2023*

- Redesigned specialized cable housings to prevent galvanic corrosion, water intrusion & cathodic reactions.
- Assessed HT thermoplastics & fiber reinforcement to determine the viability of Additive Manufacturing technologies.
- Tested prototypes to simulate long term performance onboard naval vessels and adhere to MIL standards.

Anheuser-Busch | Supply Intern | St. Louis, MO*Summer 2022*

- Applied Lean Six Sigma principles to optimize retooling procedures, achieving a 25% reduction in downtime.
- Constructed comprehensive performance tracking solutions using Excel for transparency in retooling processes.

Activities and Projects**Peanut Butter Excavation & Mobility | College Station, TX***August 2024 – Present*

- Leading my year-long senior capstone project, sponsored by Los Alamos National Labs.
- Engineering a comprehensive system for contained excavation & removal of non-Newtonian radioactive waste.
- Developing a remote-controlled robot to traverse semi-solid terrain, transport waste material, & transmit data.

SAE Aero Design Micro - Structures & Material Science | College Station, TX

Structures Advisor

April 2024 – Present

- Advising a team of peers in the design of lightweight RC aircraft structures in a multivariable optimization challenge.
- Compiling detailed materials specifications for use in FEA simulations by designing and conducting experiments.

Design Lead

April 2023 – April 2024

- 1st Place Overall (International-Level) – SAE Aero Design West – Van Nuys, CA – April 12-14, 2024
- Led a team of 11 peers to rapidly design, test, & manufacture a short-takeoff, high lift RC aircraft with liquid payload.

Member

April 2022 – April 2023

- Designed and prototyped aerostructure designs within a Scrum framework using anisotropic materials.
- Optimized aerostructures using Cost Analysis, Hand-Calculations, Topology Optimization, & Solidworks FEA.

Aggies Invent | College Station, TX

Tech for Peace: UXO and Safe Practices (Los Alamos National Labs)

October 2023

- Improved manufacturability of High Explosives and pitched the solution to LANL in a 48-Hour design challenge.
- Designed a sensor array and software solution to detect quality concerns in-situ, using commercial equipment.

AI and National Security (Sandia National Labs)

September 2023

- Developed defect detection technology for metal Powder-Bed Fusion applications in a 48-Hour design challenge.
- Designed and prototyped a hardware solution using Arduino and sensor packages to showcase the team's solution.

More Mobility | College Station, TX*August 2022 – December 2022*

- Designed a security screening solution for wheelchair users at DFW International Airport – Terminal D.
- Pitched a Minimum Viable Product to stakeholders, including process design, human factors, and technical data.