Aarathi Devakumar

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EDUCATION

Texas A&M College of Engineering | B.S in Multidisciplinary Engineering - Mechatronics **College Station, Texas – May 2028**

GPA: 3.83

Extracurriculars: Theta Tau Co-Ed Engineering Fraternity, Society of Women Engineers (SWE), Society of Mechatronics Engineering Technology (SOMTECH), American Society of Mechanical Engineers (ASME)

SKILLS

Skills: Robotics, Autodesk Inventor, Fusion 360, Solidworks, Onshape, 3D Printing, CAM, Java, Python, HTML, CSS, Matlab, Soldering, Embedded Systems, Problem-Solving, Project Management, Social Media Content Creation
Interests: Robotics and Mechatronics, Design, Social Media, STEM Education, Fashion Design, Sustainability
Awards: Girl Scout Gold Award, President's Volunteer Service Award, VEX Robotics IRHS Service Award

RELEVANT EXPERIENCE

ENDEAVR Institute | Mechanical Engineering Intern | College Station, TX **July 2025**

- Designed a hitch-compatible autonomous delivery module with weatherproof housing and thermal control to protect home-cooked meals
- Developed a cushioned ejection system and secure containment to safety deploy food and medical supplies onto varied terrains
- Assisted with CAD modeling, FEA validation, and prototyping to ensure structural integrity under transport constraints
- Integrated sensors and GPS logic to enable geofenced, fail-safe deliveries during rural transit

Johnson & Johnson Robotics and Controls Job Simulation on Forage | Controls Intern | College Station, TX **July 2025**

- Completed a job simulation as a robotics & controls engineering intern, focusing on optimizing a surgical robotic arm's performance
- Used Python-based tools to diagnose control system inefficiencies, identify root causes of delays, and implement targeted optimizations
- Proposed actionable design modifications using technical visuals, validating impact on responsiveness and durability through iterative testing
- Developed a professional design proposal outlining findings, solutions, and recommendation for improving precision and reliability in robotic systems

T.U.R.T.L.E Robotics | College Station, TX **March 2024 - Present**

Fashionable Assistive Spinal Harness Project Lead **May 2025 – Present**

- Guided a team to design a wearable smart corset to alleviate back problems and improve posture
- Combined interdisciplinary skills in fashion design and embedded systems to enhance wearability and aesthetics

Quadrupedal Team Member **March 2024 – Present**

- Established sketches and collaborated with team on chassis and leg performance weight ratio through SolidWorks
- Designed a sturdy test stand for a quadrupedal robot to explore its walking, running and jumping capabilities
- Developed detailed and multicolored CAD models through SolidWorks and designs for additive manufacturing

STEM Chinese Association for Science and Technology at UT Dallas | Student Researcher | Richardson, TX **June 2024 – July 2024**

- Conducted research on edible robotics, an upcoming field in the robotics industry
- Analyzed vegan food products and conducted various material and trial-and-error tests
- Compared non-edible vs edible materials using tensile and hydrophobicity tests

TAMUHack | *Hardware Competitor* | College Station, TX **January 2025**

- Designed a 3D-printed stable base structure in SolidWorks for a missile guiding system in a competitive field of 460+ Texas university teams
- Soldered and wired sensor connects to Arduino, ensuring 100% reliability and functionality for the design overall

WIRED (Women in Robotics Engineering and Development) | College Station, TX **August 2024 - February 2025**

VEX U Robotics Mechanical Team Member

- Engineered and refined drivetrain chassis for mobility
- Optimized scoring mechanism prototypes, such as chain intake and pneumatic hook through iterative testing
- Utilized specialized robotics materials for advanced prototyping

WORK EXPERIENCE

Engineering Academic and Student Affairs | College Station, TX **August 2025 – Present**

Teaching Assistant

- Assisted over 300+ freshmen in general engineering course: Engineering Computation Lab
- Graded students' homeworks and exams and provided constructive feedback for student improvement and success within class
- Provided office hour support outside of classroom to ensure student success

Hullabaloo U Peer Mentor

- Provided valuable mentorship and advice to 30 first-year engineering students for their success