Cade Gossett

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Driven mechanical design engineer with experience in electronics passionate about robotics, landers, rockets, aircraft, and collaborative problem solving. Seeking to contribute to hands-on development of prototyping and integration preferably within a space system architecture.

EDUCATION

Texas A&M University

Master of Engineering in Mechanical Engineering — *Aug 2025 - Dec 2026*

- *Notable courses: Mechatronics and microcontrollers*

Texas A&M University — *GPA: 3.58*

Bachelor of Science in Aerospace Engineering — *Aug 2021 - May 2025*

- *Awarded **Wings Over Houston Scholarship** (2024-2025)*
- *Received **Dean's Honor Roll Award** (Fall 2024) for Outstanding Academic Achievement*
- *Received **Distinguished Student Award** (Spring 2023) for Outstanding Academic Achievement*

Certifications:

- CNC Machining and CAM - America's Cutting Edge (ACE) — *Aug 2025*
- CNC Mill & Lathe Operator - HAAS — *Aug 2025*
- Educational Robotics Training - Universal Robotics — *Jul 2025*

PROFESSIONAL EXPERIENCE

Robotics and Automation Design Lab — *Texas A&M Engineering Experiment Station*

Graduate Research Assistant — *Aug 2025 - Dec 2025*

- Designed a test bed for a 7 axis, 14kg payload, cobot ensuring design matches manufacturer requirements
- Designed an adapter to mount an industry partner's gearbox onto the end effector of said cobot

Undergraduate Research Intern — *May 2025 - Aug 2025*

- Designed and prototyped a **3D printed** end effector handle with **Solidworks** for a strength amplification robot, integrating a new force-torque sensor for improved noise reduction
- Designed and soldered a compact wiring harness with pull-up resistor logic for a multi-button interface, routing to the robot's end effector power and data connector

Spaced Out Media

Co-Founder, Media Producer — *Dec 2021-Present*

- Co-founded and operate a photography/video company focused on commercial advertising
- Developed all **Standard Operating Procedures (SOPs)** to streamline workflow with consistent quality
- Designed project management spreadsheet to automate tasks and reduce communication necessary

PROJECT EXPERIENCE

Six DOF Robotic Arm

Independent Project — *Aug 2025 - Present*

- Constructed a 6-DOF robotic arm inspired by the UR3 Cobot with stepper motors, 3D printed actuators, and ROS 2 (Humble) for control

Lunar Lander Design Capstone — *Texas A&M University*

Project Manager — *Aug 2024 - May 2025*

- Designed a reusable LOx Hydrogen lunar lander for a 4 person crew, compatible with NASA HLS system architecture
- Conducted 1/6th scale model drop tests using lunar regolith simulant to validate Apollo-era stability requirements
- Reduced Apollo Lunar Module dry mass by 15% using modern composites and avionics

Bioastronautics and Human Performance Lab *Texas A&M University*
Undergraduate Research Assistant *Jan 2025 - May 2025*

- Participated in research into improving psychological health for astronauts during long-duration spaceflight using an **Unreal Engine** virtual reality nature environment with multimodal sensory stimulation (olfactory, thermal, wind)
- Implemented rock skipping mechanics and improved user throwing mechanics within VR environment

Society of Sonic Flight Engineers *Texas A&M University*
Structural Engineer *Aug 2023 - Jan 2025*

- Designed and built the horizontal tail for a high speed RC aircraft in **Solidworks** using **laser cut** balsa
- Verified performance requirements within a 100 mph flight regime

SKILLS & INTERESTS

Software Skills: SolidWorks, Python, C++ (basic), Arduino IDE, Excel, Unreal Engine
Prototyping & Fabrication: CNC Mill, CNC Lathe, 3D Printing, Laser Cutting
Embedded & Robotic Systems: Soldering, Breadboard Prototyping, PCB Design, Sensor Calibration/Testing
Personal Interests: Running, Astrophotography, Camping, Reading, Guitar