

MICAH OEVERMANN

College Station, Texas
mjooevermann@gmail.com

EDUCATION

PhD in Mechanical Engineering
Texas A&M University, College Station
Advisor: Dr. Robert Ambrose

December 2025

B.S. in Mechanical Engineering
Texas A&M University, College Station

December 2021

POSITIONS HELD

Robotics Automation and Design Lab
Graduate Research Assistant

January 2022 - Present
College Station, TX

BakerRisk Engineering Consultants
Student Co-op, Blast Testing Group

August 2020 - December 2020
San Antonio, TX

Biomechanical Environments Laboratory
Undergrad Research Assistant

January 2019 - May 2019
College Station, TX

PROFESSIONAL PROJECTS

RoboBall II

RAD Lab

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Deflagration Load Generator Testing

BakerRisk

- Testing support for Deflagration Load, Vapor Cloud Explosion, and Shock Tube tests
- Set up atmospheric pressure gauge array in testing zone
- Debug issues in the field hardware, electrical, and networking support systems
- Trusted to operate the largest shock tube in the world outside of government agencies
- Manufactured a custom interchangeable testing mount for glass windows
- Successfully tested 25 shock-resistant windows for an outside client
- Prioritized safety with no major injuries while working around broken glass

Bi-axial Tissue Tensile Characterization

Biomechanical Environments

- Applied concepts of linear elastic theory in the development of a biaxial tissue testing platform
- Prepared and marked organic tissue samples for use in testing
- Implemented the use of a novel fish hook – line technique to reduce clamp stresses
- Presented final design on a poster in a public research symposium

PERSONAL PROJECTS

Auto-Update CV

2025

- This CV auto-updates the publications list by scraping my Google Scholar profile with a Python script, then compiling the updated \LaTeX bib files with Github Actions

Reddit 6-DOF Arm

2022

- This CV auto-updates the publications list by scraping my Google Scholar profile with a Python script, then compiling the updated \LaTeX bib files with Github Actions

TECHNICAL SKILLS

Computer Science

Python, Cpp, Docker, ROS2, LCM, CAN

Electrical Engineering

Soldering, Cable Harnessing,

Mechanical Engineering

Solidworks, Milling, 3D Printing, Design for Assembly

Journal Articles

Empirically Compensated Setpoint Tracking for Spherical Robots With Pressurized Soft-Shells

Derek J Pravecek, **Micah J Oevermann**, Gray C Thomas, Robert O Ambrose

IEEE Robotics and Automation Letters (2025). 2025

Peer Reviewed Conference Papers

Scaling of RoboBall: A Parametric Robot Family for Crater Exploration

Rishi V Jangale, Aaron Villanueva, Garrett Jibrail, **Micah J Oevermann**, Derek J Pravecek, Meghali P Dravid, Robert O Ambrose

2025 IEEE Aerospace Conference, 2025

A Pressure Model and Control System for a Pressurized Pendulum Driven Spherical Robot

Micah J Oevermann, Meghali P Dravid, Derek J Pravecek, Will Olejnik, Robert O Ambrose

2025 22nd International Conference on Ubiquitous Robots (UR), 2025

Design of a Soft Shell for a Spherical Exploration Robot Traversing Varying Terrain

Meghali Prashant Dravid, **Micah Oevermann**, David McDougall, David Dugas, Robert Ambrose

2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024

A Soft Spherical Robot for Lunar Crater Exploration

Micah Oevermann, Meghali Prashant Dravid, Garrett Jibrail, Jared Janak, Rishi Jangale, David McDougall, David Dugas, Robert O Ambrose

AIAA SCITECH 2024 Forum, 1961, 2024, 2024

Roboball: An all-terrain spherical robot with a pressurized shell

Micah Oevermann, Derek Pravecek, Garrett Jibrail, Rishi Jangale, Robert O Ambrose

2024 IEEE International Conference on Robotics and Automation (ICRA), 2024

Presented Abstracts

A System for Exploring Craters and Shadowed Regions of the Lunar South Pole

Meghali Dravid, **Micah Oevermann**, Robert Ambrose

ASCE Space and Earth Conference, 2024

RoboBall Recap: Past, Current, and Future Inflatable Spherical Robots

Rishi Jangale, **Micah Oevermann**, Garrett Jibrail, Derek Pravecek, Meghali Dravid, Aaron Villanueva, Robert Ambrose

40th Anniversary of the IEEE International Conference on Robotics and Automation, 2024

Persistent intelligence, Surveillance and Reconnaissance for the Lunar Surface

Robert Ambrose, **Micah Oevermann**, Meghali Dravid, Garrett Jibrail

AIAA ASCEND Conference, 2023

Design and Dynamics of Rugged Soft Shells for a Pendulum-Driven Spherical Robot

Micah Oevermann, Meghali Dravid, Garrett Jibrail, Robert Ambrose

OSU International Mechatronics Conference and Exposition, 2023