

Thomas Ammon

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Areas of Knowledge and Expertise

- Structural Analysis
 - Fluid and Thermal Analysis
 - Machine & Equipment Repair
 - Experimental Design
 - Rapid Prototyping
 - SolidWorks and AutoCAD
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EDUCATION

Master of Science in Mechanical Engineering (MSME), GPA: 3.7/4.0
University of Nebraska, Lincoln, NE, December 2018

Bachelor of Science in Mechanical Engineering (BSME), GPA: 3.5/4.0
University of Nebraska, Lincoln, NE, 2017

EXPERIENCE HIGHLIGHTS

MIDWEST ROADSIDE SAFETY FACILITY, Lincoln, Nebraska, Jan. 2016 – Aug. 2017, Jan 2018 - Present

Undergraduate Research Assistant, Graduate Research Assistant

- Currently developing a debris containment fence, for use along high speed roadways, to Iowa Department of Transportation and American Institute of Steel Construction design standards.
- Part of a four-member team tasked with designing, testing, and implementing a full-size RC car system for usage with Department of Defense infrastructure testing.
- Developed dimensionless groups using the Buckingham Pi Theorem to predict forces between hollow structural steel posts and soil during slow speed impacts.
- Authored multiple vehicle dynamics and full-scale vehicle crash testing reports.
- Experience with accelerometer and gyroscope placement and data analysis.
- Determined expected wind loads on different sizes of chain-link fence fabric.
- Created a Microsoft Project template and setup over 45 different project files.
- Developed non-destructive testing procedures for semi-truck vehicle dynamics testing.

NIMBUS LAB, Lincoln, Nebraska, Aug. 2018 – Present

Graduate Research Assistant

- Part of a multidisciplinary aerospace project for the Department of Defense to autonomously deliver a drone and payload behind enemy lines.
- Created an Excel calculator used to determine payload drift as a function of wind speed velocity, aircraft velocity, and expected drag forces.

AMMON FAMILY RANCH, Newport, Nebraska, May 2005 – Jan. 2016

Ranch Hand

- Over 5,000 hours of heavy and light machinery experience including the usage of tractors and four-wheelers for agricultural production.
- Assisted in the raising of over 3,000 cattle from birth until market.

MIDWEST SOUND AND LIGHTING, Omaha, Nebraska, July 2010 - Aug 2014

Sound Technician

- Staged, set up live sound equipment, and manipulated acoustical signals with multistage filtering systems for groups of up to 4,000 people.
- Supervised and trained new employees on proper live sound operations and techniques.