# Tristan Brasov

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## EDUCATION

**University of Colorado** — **Boulder, Colorado**
***Master of Science, Aerospace Engineering*** — *August 2025 – Present*
*Focus on Fluids, Structures, and Materials* — *GPA: 3.65/4.0*

**University of Missouri** — **Columbia, Missouri**
***Bachelor of Science, Mechanical Engineering*** — *Graduated May 2025*
*Minor: Aerospace* — *GPA: 3.6/4.0*

## TECHNICAL SKILLS

**Software*:*** MATLAB, SolidWorks, Fusion 360, Siemens NX, ANSYS, STAR-CCM+, XFOIL, 3D printing
**Analysis and Standards:** computational fluid dynamics, finite element analysis, GD&T (ASME Y14.5)

## RELEVANT EXPERIENCE

**Integrated Remote and In-Situ Sensing Lab;** *Independent Study;* Boulder, CO — **January 2026 – Present**
- Defined a computational fluid dynamics framework in STAR-CCM+ to assess local flow distortion on the DataHawk2 UAS
- Created the first baseline CAD model of the UAS in SolidWorks/Fusion 360 to support aerodynamic analysis and iteration

**JetZero;** *Configuration and Flight Performance Engineering Intern (NDA);* Long Beach, CA — **June 2024 – August 2024**
- Architected mass properties workflow in MATLAB to integrate 5500+ parts, replacing legacy center of gravity (CG) methods
- Corrected MATLAB and NX data gaps by tracing errors across airframe, propulsion, and fuel groups to restore mass accuracy
- Built fuel modeling suite to inform selection of a 2 tank layout over 3 by evaluating CG impacts across pitch, roll, and yaw
- Produced weight and CG material for two USAF and NASA reviews, shaping blended wing body layout decisions

**McKinstry;** *Construction Project Engineering Intern*; Denver, CO — **June 2023 – August 2023**
- Supported project engineering on an $83M facility upgrade coordinating trades, vendors, and schedules across systems
- Diagnosed failure modes across 11 air handling units, reducing recurring equipment faults from 5 to 10% annually to zero
- Led short term scheduling efforts to maintain a two-week schedule buffer amid changing construction constraints
- Authored 15+ RFIs and proposals to resolve scope ambiguity and accelerate cross team approvals

## PROJECTS

**Flying Lab for Airborne Isotope Research;** *Graduate Project;* Boulder, CO — **January 2026 – Present**
- Redesigned the inlet geometry to reduce separation at 15 to 20 m/s and improve flow quality into laser hardware
- Integrated honeycomb and mesh straighteners to improve downstream velocity uniformity under tight space constraints

**HAPPY RAMPS;** *Senior Capstone Design Project Leader;* Columbia, MO — **January 2025 – May 2025**
- Led aluminum ramp structural design and validated geometry by finite element analysis, increasing factor of safety by 40%
- Designed and machined aluminum jigs to support TIG weld up, cutting fabrication time by 50% and reducing rework
- Applied ASME Y14.5 GD&T to 10+ part and weld drawings to ensure fit up and manufacturing repeatability

**Mizzou Formula Society of Automotive Engineers**; *Team Member;* Columbia, MO — **August 2021 – May 2022**
- Manufactured carbon fiber front wing assemblies, improving aero balance and reducing lap time by 0.5 s
- Tuned front and rear wing settings and suspension to improve stability above 30 mph on tight competition courses
- Developed a new dashboard layout in SolidWorks to improve driver visibility during competition events

## LEADERSHIP

**Veritas;** *Campus Ministry Small Group Leader* — **January 2022 – May 2025**
- Led small teams through goal setting/execution, resolving conflicts, and enforcing accountability over multi-year timelines
- Coordinated outreach and event planning that scaled weekly participation from 250 to over 1000 students

**Mizzou Student Foundation;** *Director of Thankful Tigers* — **August 2022 – May 2025**
- Raised $11K+ in scholarships by engaging campus organizations, guiding 6 students to complete their degrees
- Facilitated a donor appreciation dinner for top Mizzou supporters, contributing to a $40K growth in annual giving