

Tristan Brasov

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EDUCATION

University of Colorado

Master of Science, Aerospace Engineering
Focus on Fluids

Boulder, Colorado

August 2025 - Present

University of Missouri

Bachelor of Science, Mechanical Engineering
Minor: Aerospace

Columbia, Missouri

Graduated May 2025

GPA: 3.6/4.0

Dean's List: 8/8 semesters

IES Vienna

European Society & Culture Program (Global Studies Elective)

Vienna, Austria

Spring 2024

TECHNICAL SKILLS

Software: MATLAB, Siemens NX, SolidWorks, Fusion 360, FEA, ANSYS, XFOIL, USB-2408 DAQ

Tools & Methods: milling, lathing, DFM principles, 3D printing, GD&T (ASME Y14.5), engineering drawings, root cause analysis

WORK EXPERIENCE

JetZero; Configuration and Flight Performance Engineering Intern (NDA); Long Beach, CA

June 2024 – August 2024

- Built MATLAB scripts to **test center of gravity shifts in 550+ lb parts**, improving pitch stability and weight limits by **12%**
- Designed payload configurations in Siemens NX**; corrected layout errors and shortened redesign time by **20%**
- Analyzed fuel tank layouts (2 vs. 3 tank systems) to **optimize center of gravity alignment and manufacturing feasibility**
- Created weight layout documents for **400+ lb parts** to meet NASA/USAF submission criteria; verified structural distribution

McKinstry; Construction Project Engineering Intern; Denver, CO

June 2023 – August 2023

- Coordinated with trades and vendors on an **\$83M** facility upgrade, leading scheduling efforts to stay 2 weeks ahead
- Performed root cause analysis** on 11 air handling units, reducing equipment failures from **5-10%** per year to **0%**
- Prepared **15+** requests for information/proposals to clarify construction scope and accelerate approval processes

Coastal Interactive; Contractor; Manhattan Beach, CA

June 2022 – August 2022

- Managed **\$150K** retrofit from design to handoff; assembled and verified telecom-grade electrical system performance
- Proposed cost-saving changes** in design phase; integrated existing structures and cut material/labor cost by **\$8K**

ENGINEERING PROJECTS

HAPPY RAMPS; Senior Capstone Design Project Leader

January 2025 – May 2025

- Designed aluminum ramps in SolidWorks and performed FEA** under 8,000 lb static load; increased factor of safety by **40%**
- Machined aluminum jig components using a mill to support precise TIG weld-up and reduce manufacturing time by **50%**
- Applied GD&T standards** to 10+ part drawings and weld fixtures; improved fit-up accuracy and reduced rework

Mizzou Formula Society of Automotive Engineers; General Team Member

August 2021 – May 2022

- Manufactured the front wing with **carbon fiber layups**, improving downforce distribution and reducing lap time by 0.5s
- Calibrated the front/rear wings and suspension to **minimize instability** at speeds > 30mph and turn radius 50-70ft
- Drafted a new dashboard system in SolidWorks** to improve visibility, achieving top 20 finish at Formula SAE invitational

LEADERSHIP & ACTIVITIES

Veritas; Campus Ministry Small Group Leader

January 2022 – May 2025

- Mentored peers through weekly 1:1s focused on habit-building and accountability; leadership outside of technical scope
- Drove campus outreach through social media and events to help grow the organization from **250 to 1000+ people**

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