Tristan Brasov

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EDUCATION

University of Colorado — **Boulder, Colorado**
Master of Science, Aerospace Engineering — *August 2025 - Present*
Focus on Fluids

University of Missouri — **Columbia, Missouri**
Bachelor of Science, Mechanical Engineering — *Graduated May 2025*
Minor: Aerospace — *GPA: 3.6/4.0*
Dean's List: 8/8 semesters

IES Vienna — **Vienna, Austria**
European Society & Culture Program (Global Studies Elective) — *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