JESSE GROVES

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EDUCATION

The University of Tennessee, Knoxville, Tickle College of Engineering — Knoxville, Tennessee
Bachelor of Science in Aerospace Engineering — Graduation: May 2022
Major: *Honors Aerospace Engineering* — Cumulative GPA: 3.7

University of Arizona, Department of Aerospace and Mechanical Engineering — Tucson, Arizona
Master of Science in Aerospace Engineering — Graduation: December 2024
Major: *Aerospace Engineering* — Cumulative GPA: 3.7

PROFESSIONAL SUMMARY

Currently working as an aerospace engineer in charge of CFD simulations and wind tunnel experiments for air-breathing propulsion systems. Adept at technical writing, compressible flow, fluid dynamics, and various coding languages. Extensive background in investigating swept shock boundary layer interactions for applications in hypersonic air-breathing inlets and isolators.

EXPERIENCE

Monte Sano Research Corporation — Huntsville, AL
Aerospace Engineer — June 2024 – Present

- Lead engineer in charge of CFD simulations for an axisymmetric ramjet engine
- Modeling of cane curves to determine inlet performance for ramjet engine
- Fin design and stability analysis of flight vehicle utilizing DATCOM and CFD
- Developing analytical method to design ramjet engine inlets based on multiple vehicle requirements
- Design and implementation of wind tunnel experiments

University of Arizona — Tucson, AZ
Graduate Research Assistant — June 2022 – January 2025

- Performing research in swept shock-boundary layer interactions in hypersonic flow
- Successfully began research in new Arizona Polysonic Wind Tunnel (APWT)
- Lead the characterization of the flow in APWT through CFD and experiments
- Designed new parts for APWT to be used for current and future projects
- Taught other students and professionals how to run and operate APWT
- Lead a team of graduate and undergraduate students to ensure successful and safe runs for multiple projects

RELEVANT PROJECTS

Undergraduate Senior Capstone — Knoxville, TN
Team Leader — August 2021 – May 2022

- Lead a team and aerodynamicist to design and build a system to launch a rocket from altitude
- Simulated and built rockets that were launched and performed as designed
- Successfully built a working test stand that launched a rocket elevation autonomously

SKILLS & AWARDS

- Received Graduate College Fellowship of University of Arizona, UT Volunteer scholarship, and Distinguished Tennessean Award
- Proficient in SolidWorks, MATLAB, Python, ANSYS Fluent, StarCCM, LabView, and Linux OS