Rishi Shetty

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EDUCATION

University of Michigan **Ann Arbor, MI**
B.S.E. Aerospace Engineering & Minor in Computer Science - GPA: 3.74/4.00 *December 2025*
- 2022 Lockheed Martin STEM Scholarship Recipient

M.S.E. Aerospace Engineering *Expected December 2026*

CORE COMPETENCIES

Software Skills: C++, Python, MATLAB, Simulink, CATIA, Cameo, Solid Works, Autodesk Inventor, STAR-CCM+, AVL
Relevant Courses: Aerodynamics, Propulsion, Aircraft & Spacecraft Structures, Flight Dynamics, Advanced Instrumentation & Measurement, Electrical Circuits, Computer Organization, Data Structures & Algorithms

WORK EXPERIENCE

Lockheed Martin **King of Prussia, PA**
Systems Engineering Intern *June 2024 - August 2024*
- Applied Agile principles, writing acceptance criteria for new features of the JASSM Enterprise Management System
- Produced CONOPS and system architecture diagram of signal processing intern project through Cameo
- Introduced file upload for internal data generation tool to streamline testing in C#, reducing time spent by 80%
- Composed more realistic test data for SQL database and performed manual acceptance and regression testing

Naval Sea Systems Command (NAVSEA) **Dahlgren, VA**
Systems Test Engineering Intern *June 2024 - August 2024*
- Developed test procedures for the verification and validation of the Tactical Tomahawk Weapons Control System
- Executed test procedures by collecting, recording, and archiving data from operating segments of the Tomahawk Weapon System, including TTWCS and VLS in the Weapons Systems Control & Integration Laboratory
- Created the Automated System/Subsystem Specification (SSS) Standardization Evaluation & Test Tool (ASSETT), a model-based system engineering application that standardizes test inputs, requirements, and expected outputs

Aircraft & Spacecraft Structures, Aerosp 315 **Ann Arbor, MI**
Instructional Aide *January 2025 - May 2025*
- Reinforced concepts of elasticity, torsion, beam bending, and energy methods in structural mechanics including FEM
- Facilitated weekly office hours, exam review sessions, and answered Piazza posts for a class of 103 students

Aether Model of the Thermosphere and Ionosphere, University of Michigan **Remote**
Research Assistant *January 2023 - August 2023*
- Generated log files to output user-specified data and advanced reader in Python to visually interpret trends
- Established an error-handling system used to improve the debugging process and screen input files

PROJECTS

M-Fly, University of Michigan **Ann Arbor, MI**
Autonomous Propulsion Lead *May 2024 - May 2025*
- Mentored 10 new members to use electric propulsion analysis tools such as MotoCalc, eCalc and MATLAB
- Integrated new dual prop system through a custom wiring harness and performed thrust testing, ensuring success
- Boosted propulsion system efficiency by increasing cruise speed by 23% and doubling flight range, while increasing system weight by only 32%, and maintaining similar MTOW and static thrust-to-weight ratio as the previous design

Autonomous Aerodynamics Lead *May 2023 - May 2024*
- Trained 15 new members to use aerodynamic analysis tools and programming to optimize the aero design process
- Researched possible airfoils and wingtip designs, and plotted drag polars through AVL and STAR-CCM+
- Designed team's first elliptical wing planform considering limited manufacturability but improved aerodynamic performance, increasing cruise lift-to-drag ratio by 70% and Oswald efficiency by 11% compared to past year

Thrust Generating Hardware Cooling Duct for RC Airplane, Aerosp 405 **Ann Arbor, MI**
Team Lead *August 2024 - December 2024*
- Responsible for timely completion of project white paper, proposal and poster presentations, and final report
- Built test rig with 3D-printed nose, birch-ply fuselage, CF plates, cardboard ducts, and power resistor heat source
- Reduced heat source temperature by over 30°C and mitigated air duct drag by up to 32.6% through MATLAB models of quasi-1-D and Rayleigh flows, CFD simulations, and testing in the UofM 5'x7' low turbulence wind tunnel