

PROFILE

University of Florida engineering student working across rocket CFD, aircraft design and manufacturing, experimental fluids, instrumentation, MATLAB tools, and astrophotography.

EDUCATION

University of Florida

Gainesville, Florida

Aerospace and Mechanical Engineering

SELECTED ENGINEERING EXPERIENCE

SWAMP LAUNCH

ROCKET CFD AND CAD CONTRIBUTOR

- Connected a competition rocket CAD model, ANSYS Fluent workflow, and wind-tunnel test setup to compare predicted and measured drag.

GATOR DESIGN / BUILD / FLY

AIRFRAME, MANUFACTURING, AND AERO ANALYSIS

- Manufactured aircraft structures including carbon-fiber fuselage work and used XFLR5 to evaluate aerodynamic behavior and design constraints.

FAST LAB ROBOTIC FISH RESEARCH

UNDERGRADUATE RESEARCH CONTRIBUTOR

- Supported water-tunnel experiments, hydrofoil load-cell drag measurement, CAD test hardware, instrumentation, and fluid-structure research.

MODULAR DESKTOP WIND TUNNEL

DESIGNER AND BUILDER

- Built a compact test platform for lift experiments and flow visualization using aerodynamic literature and rapid prototyping.

AIRCRAFT ENGINE CLASSIFICATION

MATLAB DEVELOPER

- Created a custom machine-learning classification workflow and evaluated it with an 86.16% training confusion-matrix accuracy.

TECHNICAL SKILLS

DESIGN & ANALYSIS

SolidWorks, ANSYS Fluent, CFD meshing, XFLR5, aerodynamic analysis

COMPUTING

MATLAB, machine learning workflows, data analysis, technical documentation

BUILD & TEST

Carbon-fiber fabrication, wind-tunnel testing, load cells, instrumentation, rapid prototyping

SPACE & IMAGING

Astrophotography, telescope setup, DeepSkyStacker, PixInsight, ASI AIR

LEADERSHIP & COMMUNICATION

- Founded the Happy Feed student wellness initiative, led science and student organizations, and developed public-speaking, mentoring, and technical content skills.

ADDITIONAL

Interests: aerospace, defense, aircraft, rockets, fluid systems, computational and experimental engineering, tennis, soccer, and technical content creation through Astroori.