M/H Matthew Hopwood

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EDUCATION

Aerospace Engineering B.S.

University of Central Florida

May 2020

In-Major GPA: 3.31 | UCF GPA: 3.21

SKILLS

Star-CCM+, ANSYS Fluent, Nastran
SolidWorks, Autodesk Inventor
MATLAB, Mathcad, Python, C
XFOIL, XFLR5, Orbital STK - AGI
Microsoft Office (Excel, Word, etc.)
ArcGIS, LabVIEW
Teamwork, Organization, Communication

COURSEWORK

Aerothermodynamics of Propulsion Systems
Analysis of Aerospace Structures
Flight Mechanics
Kinematics of Mechanisms
Small Satellite Payloads and Integration Design
Space Systems Concepts

HONORS

UCF Pegasus Gold Scholarship
Kohler Scholarship
Bright Futures Florida Medallion Scholars
Earned an International Baccalaureate Diploma

ABOUT ME

Excited to apply education and personal project knowledge to practical applications in the workforce. Enjoy team projects, extracurricular sports (running and rowing), and my dog Molly. Looking forward to one day earning a recreational pilot license.

EXPERIENCE

Intern

Singhofen & Associates Inc. / Orlando, FL / September 2018 – December 2019

- Worked with python to optimize data analysis/processing
- Finalized data into professional figures/reports
- Created and gave professional presentations to entire company

EXTRACURRICULAR

Small Jet Engine with EDF Intake | 2020 - Present

- Utilizing an Electronic Ducted Fan (EDF) Power System as an air intake for small jet engine
- Working on CAD model for CFD analysis on internal flow
- Using python code for quick engine parameter calculations

AIAA Design, Build, Fly (Senior Design Project) | 2019 - 2020

- Designing & Building banner carrying plane (5' wingspan)
- Created CAD model for CFD analysis on plane
- CFD focused on meshing, force reports, analysis of scalar plots
- Wrote python code for quick initial parameter calculations, plane optimization through CFD analysis & iterative design process

UCF AIAA Rocket League | 2018-2019

- Gold Division | Launched Rocket to ~500m, deployed custom built payload
- G class rocket motor
- Modeled in OpenRocket, Fins/Payload modeled in SolidWorks

Running Club at UCF | 2018 – 2020 | Acting Treasurer

- Planned and presented yearly budget to Student Government
- UCF swept top three at Ragnar Trail Atlanta (Ultra Team)
- Ran Miami Marathon 2020

FIRST FTC Robotics | 2016 | Lead Driver & Builder

- Qualified for Super Regionals at State meet as a rookie team
- Hardware and software integration
- RoboKnights – Team 9930