Matthew Hopwood

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EDUCATION

University of Central Florida
Bachelor of Science in Aerospace Engineering
August 2016 - May 2020
- In-Major GPA: 3.31

EXPERIENCE

Intern
Singhofen & Associates Inc. / Orlando, FL / September 2018 – December 2019
- Created a Python-based model to optimize rainfall data analysis/processing
  - Rewrote old program to compensate for large quantity of data which was causing memory leak
- Finalized stormwater data into professional figures/reports
- Researched and became versed in a curve numbers method; Gave professional presentation to educate entire company

EXTRACURRICULAR

Small Jet Engine with EDF Intake | June 2020 - Present
- Utilizing an Electronic Ducted Fan (EDF) Power System as an air intake for small jet engine
- Working on developing SolidWorks model for ANSYS analysis on internal flow
- Programmed Python-based model for quick engine parameter calculations

AIAA Design, Build, Fly (Senior Design Project) | August 2019 – May 2020
- Designing & Building banner-carrying plane (5' wingspan)
- Created a Solidworks model for Star-CCM+ (CFD) analysis on plane
- CFD focused on meshing, force reports, analysis of scalar plots
- Programmed Python-based model for initial parameter calculations, plane optimization through CFD analysis & iterative design process

UCF AIAA Rocket League | January 2019 – April 2019
- Gold Division | Launched Rocket to ~500m, deployed custom built payload
- G class rocket motor per competition requirements
- Modeled in OpenRocket, Fins/Payload modeled in SolidWorks

Running Club at UCF | August 2018 – May 2020 | Treasurer
- Planned and presented yearly budget to Student Government
- Managed budget to leave team in their best financial standing since founding
- Planned workouts, Lead UCF to win top three at Ragnar Trail Atlanta (Ultra Team)
- Lead a small team to train and complete the 2020 Miami Marathon

FIRST FTC Robotics | Year of 2016 | Lead Driver & Builder
- Qualified for Super Regionals from state meet as a rookie team
- Hardware and software integration
- RoboKnights – Team 9930

SKILLS

Computational Analysis
- Star-CCM+, ANSYS Fluent, Nastran
- XFOIL, XFLR5, Orbital STK – AGI

Coding
- MATLAB, Mathcad, Python, C

Computer Aided Design (CAD)
- SolidWorks, Autodesk Inventor

Additional
- LabVIEW, Microsoft Office (Excel, Word, Access, Outlook, PowerPoint)

HONORS AND ACTIVITIES

- UCF Pegasus Gold Scholarship
- Kohler Scholarship
- Bright Futures Florida Medallion Scholars
- Senior Year - Dean's List
- Earned an International Baccalaureate Diploma from Winter Park High School