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Passionate masters aerospace student with experience in test engineering from both a schooling and work environment. Experience with leading design and data analysis projects where engineering fundamentals were applied and drawings were generated. Complex problem-solving, written, and communication skills. Extremely motivated to get into and prove myself in the aerospace industry.

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## SKILLS

### Computational Analysis

- Star-CCM+, ANSYS Fluent, Nastran, SolidWorks; (Computational Fluid Dynamic (CFD) Analysis and Finite Element Analysis (FEA))
- XFOIL, XFLR5, Orbital STK – AGI

### Computer-Aided Design (CAD)

- SolidWorks, PTC Creo, Autodesk Inventor

### Coding

- MATLAB, Python, Mathcad, C

### Additional

- LabVIEW, Microsoft Office (Excel, Word, Access, Outlook, PowerPoint), 5S

## EXPERIENCE

### Engineering Intern

#### Mathews Environmental Solutions | Apopka, FL | October 2020 – Present

- Led hydraulic lift table redesign project efforts based on customer input/requirements
  - Developed CAD model; Verified design by static free body diagram calculations and finite element analyses
  - Calculations verified through real world testing of hydraulic systems
  - Built, maintained supplier relationships to outsource product manufacturing labor
- Developed drawings/build procedures for prototype design and production
- Implemented 5-S practices on steel storage area, with focus on sustainability

### Intern

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

- Created a Python-based model to optimize rainfall data analysis/processing
  - Rewrote data processing program to avoid memory lead caused by large data files
- Finalized stormwater data into professional figures/reports

## EDUCATION

### University of Central Florida

#### Masters of Science in Aerospace Engineering: Thermofluid Aerodynamic Systems Design and Engineering

January 2021 – Present | 4.00 GPA

- Current Coursework: Mathematical Methods in Aerospace Engineering

### University of Central Florida

#### Bachelor of Science in Aerospace Engineering

August 2016 - May 2020 | 3.21 GPA

- Pegasus Gold Scholarship | Bright Futures Florida Medallion Scholar | Deans List Senior

## RELEVANT PROJECTS

### Personal Rocketry Project | March 2021 – Current

- Developing model rockets using engineering design practices to hit predetermined goals
  - Rocket 1 (in-progress): Develop design procedures and test nose cone designs
  - Rocket 2: Utilize thrust vectoring instead of fins for stable flight and max apogee
- SolidWorks model created, OpenRocket used for initial analysis, ANSYS Fluent used for more complex fluid analysis

### AIAA Design, Build, Fly (Senior Design Project) | August 2019 – May 2020

- Designed & Built banner-carrying plane (5' wingspan)
- Created 3D model, Performed CFD (fluid) analysis, used for design optimization
- Programmed Python-based model for initial parameter calculations, was working on code for automatic optimization until project cancelled due to COVID-19.