

Calvin Dahl

I am a recent graduate seeking a position as an aerospace engineer working with launch vehicles, aircraft or space systems. I have interests in analysis and design work but am open to other opportunities in software or test engineering.

EDUCATION

University of Central Florida [3.815 GPA]

Orlando Fl | May 2024 with Bachelor's in Aerospace Engineering

Eastern Florida State College [3.31 GPA]

Melbourne Fl | Dual Enrolled Fall 2018 – Spring 2021 with AA

- Honoree of Tau Sigma National Honor Society
- Bright Futures Academic Scholarship Recipient
- Dean's List [Fall 2021 - Spring 2024]

PROJECTS / WORK EXPERIENCE

SENIOR DESIGN ----- Fall 2023 – Spring 2024

- Built and launched a rocket with a team of 5 other students that attempted to carry sensitive payload to 2000 feet and return to earth safely.
- Contributed to: Project Management, Concept Generation, Failure Modes and Effect Analysis, Prototyping and Testing, rocket performance and stability analysis using CFD, and manufacturing parts of the rocket.
- Showcase Semi-finalist: picked to present project as one of 45 out of 180 different senior design teams.

CFD UNDERGRADUATE RESEARCH ----- Summer 2023 – Spring 2024

- Learned how to use STAR-CCM+ to simulate fluid flow - including the validation of an ONERA-M6 wing by matching wing pressure plots to that of experimental data.
- Used different fluid flow models to capture effects on sections of a wing, including wake.
- Presented accomplishments and work every week to other student researchers and professor.

ROCKET ENGINE PROJECT ----- Spring 2024

- Created code using MATLAB to march through a turbojet engine and solve aircraft performance parameters.

BEAM VIBRATIONAL ANALYSIS ----- Spring 2023

- Performed Modal Analysis of a cantilever beam using Ansys Workbench

THIN PLATE PROJECT ----- Fall 2022

- Worked with a team of 3 other students in the analysis of a wing fence using thin plate theory in NX Nastran.
- Modeled a stall fence based off a Russian airfoil and simulated it based on aerodynamic spanwise flow loads.

AIRFOIL ANALYSIS ----- Fall 2022

- Analyzed effectiveness of various NACA airfoils and respective 3D wings under changing Reynolds Number and angle of attack in XFOIL and XFLR5.

WIND TUNNEL PROJECT ----- Fall 2022

- Worked with a team of 3 other students in the flow visualization of a model car in a wind tunnel, along with the respective drag forces under different flow velocities.

WALMART & PAPA JOHNS ----- Summer 2020 – Summer 2022

PERSONAL PROJECTS

JAVASCRIPT GAME & WEBSITE ----- Fall 2023 – Ongoing

- Learned object-oriented programming in JavaScript to create a 2D Videogame from scratch. And learned HTML5 and CSS to create my own website to host my projects.
- Used modeling methods to create Catmull-Rom splines and discretized model for 2D terrain game collision.

ROCK CLIMBING ----- Summer 2016 – Ongoing

- 2021 & 2022 Collegiate National Competitor - USA Climbing
- Volunteer belayer and judge at youth and collegiate level climbing competitions for several years
- Designed and printed 3D models for rock climbing gym holds and walls using AutoCAD and SolidWorks.

SKILLS

PROGRAMMING

- MATLAB
- JavaScript
- HTML5
- CSS
- C & C++

COMPUTER AIDED ENGINEERING

- AutoCAD (Design and Drafting Certification)
- SolidWorks (Certified SolidWorks Associate)
- Fusion 360
- NX Nastran
- Ansys Workbench
- STAR-CCM+

OTHER

- XFOIL And XFLR5
- NI LabVIEW
- Ansys STK
- Open Rocket
- Gantt Project
- Microsoft Excel