

# COLIN WAGNER

wagner.1398@buckeyemail.osu.edu / 614-937-1787 /  
3227 Scioto Farms Dr. / Hilliard, OH 43026 / portfolio: <https://colinwagner.godaddysites.com/>

## PROFILE

I am a 2022 graduate of The Ohio State University with a B.S. in Aerospace Engineering and a Design Thinking minor. I am searching for an aerospace or mechanical engineering related full-time opportunity where I can learn and lead, as well as feed my curiosity and passion for problem solving and design - utilizing the technical knowledge and communication skills that I've acquired through my extracurricular and academic careers.

## EDUCATION

Ohio State University - Columbus, OH

*Expected Graduation: May 2022*

**Bachelor of Science:** Aeronautical and Astronautical Engineering

- Minor in Design Thinking
- 3.5 cumulative GPA

## PROJECTS

**Personal Electric Aircraft** / Design of Atmospheric Flight Vehicles

*September 2021 – April 2022*

- Team of 5 students tasked with designing a personal electric aircraft with various design requirements
- Consisted of a concept design phase (AU21) and a preliminary design phase (SP22)
- Performance parameters were constantly refined as more detailed geometry and systems were decided upon
- Real world, in-depth application of aerospace concepts to solve a complex problem

**Counter-Flow Air-to-Air Heat Exchanger** / Experimental Projects (Capstone) *September 2021 – April 2022*

- Research capstone project focused on exploring the ways in which a heat exchanger can be designed to maximize efficiency and maintain a low air mass flow rate
- Team of 5 students with a faculty advisor, tasked with designing an adequate experiment from scratch (\$600 budget) and completing a computational component to further explore the project

**Student Wellness Project**/ Exploring Design Thinking

*October - November 2020*

- Group of 4, tasked with designing a solution to improve the general wellness of students during pandemic
- Utilized the design process: conducting surveys, defining our problem, ideating solutions, prototyping, and developing a final product concept
- Presented our final idea, a (improved) wellness app with more student accessible features

**1-D Rocket Simulation** / Intro to Aero. II

*April 2020*

- Group of 3 students created a physics-based model to simulate a vertically launched/traveling rocket
- MATLAB was used to execute this simulation, accounting for variance in thrust and mass

## ORGANIZATIONS

- Empower Mentoring *2020 - Present*
  - **Operations Chair:** Head of scheduling, communicates with teachers and mentors, handle logistics
- American Institute of Aeronautics and Astronautics (AIAA) *2019 - Present*
- Buckeye Space Launch Initiative *2019 - 2020*
  - Aerodynamics sub-team member (CFD, work with SolidWorks & ANSYS Fluent)

## SKILLS

- Leadership	- Organization	- MATLAB / Simulink
- Teamwork	- Communication	- XFLR5 / OpenVSP
- Problem Solving	- Autodesk Inventor / SolidWorks / OnShape	- ANSYS (Fluent, FEM)

## EXPERIENCE

**Student Grader** / OSU Department of Mechanical and Aerospace Engineering *August 2021 – December 2021*

- Grader for Introduction to Aerodynamics (AE 3560), scoring of students' course assignments
- Average 10 hours of work per week
- Required communication with students and instructor, as well as time management skills to manage own courses
- Reinforced fundamental concepts of aerodynamics (stream-functions, thin airfoil theory, etc.)