

EDUCATION

Olin College of Engineering, Needham MA

May 2022

- Bachelor of Science in Mechanical Engineering (Expected May 2022); GPA 4.0
- Relevant Courses: Mechanical Prototyping; Quantitative Engineering Analysis; Software Design; Astronomy and Statistics; Modeling and Simulation of the Physical World; Introduction to Sensors Instrumentation and Measurement; Photography Independent Study
- Olin Rocketry (structures team lead); Design Build Fly (team member and chief test pilot); PowerChords (a cappella group member)

Columbia Independent School, Columbia MO

May 2017

- Engineering track, Spanish, Latin, and 9 Advanced Placement classes; GPA 3.9

SKILLS

- FAA Private Pilot
- FAA Part 107 Commercial Drone Pilot
- Generative Design
- SolidWorks, Adobe Suite
- Fusion 360, MATLAB, Mathematica, Python
- Photography, drone photography, and photo editing
- Composite construction (carbon fiber, fiberglass)
- Basic Computational Fluid Dynamics
- Blender soft modeling and rendering
- ArduPilot open source flight control
- Welding (Arc, MIG, TIG)
- Laser cutter, metal lathe, mill, Shopbot

EXPERIENCE

Autodesk Fusion 360 Catalyst

August 2019 - Present

- Serving as a student ambassador to Fusion 360 for Autodesk
- Conducting office hours and workshops to assist students with basic concepts and advanced skills
- Teaching generative design, soft modeling, mesh modeling, and CAM concepts

ECP Aerial Solutions, Columbia MO (Aerial imaging and electronics)

June - August 2018

- Constructed a functional VTOL drone prototype
- Assisted in the design of a planned composite commercial drone for agricultural surveying
- Assisted in using drone photogrammetry for 3D scanning of buildings

Makerspace Instructor, Columbia Independent School, Columbia MO

August 2016 - May 2018

- Collaborated with other instructors to set-up and teach classes introducing engineering concepts to students from elementary school through high school
- Assisted students with CAD, 3D printers, and shop safety practices

Design, Construct, and Pilot Original Model Aircraft

May 2014 - Present

- Develop unmanned aerial vehicles including fixed-wing, multirotor, and VTOL aircraft
- Research and apply aerodynamics and physics principles to improve flight characteristics
- AIAA Member (2017 - present)
- Academy of Model Aeronautics Member (2015 - present)
- International Flite Fest (2016 - 2019)

