hector.medrano.me@gmail.com www.linkedin.com/in/hector-medrano-2ba915173

# <u>Skills</u>

- Proficient in SOLIDWORKS for surface designing, drafting parts, drawings, and assemblies
- Familiar with MATLAB in Live Script construction and mathematical analysis
- Familiar in design and analysis programs like XFLR5, OpenVSP, and QBlade as an ability to learn new skills
- Worked in groups in varying positions like project designer, editor, meeting organizer, and CAD engineer
- Communicative to others in clarification, assignment progress, and work assistance
- Experience with digital tools like Microsoft Word, Excel, PowerPoint, as well as Zoom and Microsoft Teams

# **Education**

## **Northern Arizona University**

B.S. Mechanical Engineering GPA: 3.42

**Relevant Courses:** Aerodynamics, Experimental Methods Thermal Sciences, Heat Transfer, Fluid Mechanics, Compressible Flow, Machine Design, Differential Equations, Numerical Analysis, Dynamics, and Mechanics of Materials

### **Experience**

**SAE AERO Micro** – CAD Engineer and Member

Ongoing: August – May 2022

Expected: Spring 2022

- Designed an adopted fuselage in accordance with competition guidelines along with assemblies
- Integrated separate subsystems like the main wings and stabilizers into conjoined presentable assembly
- Compiled part and assembly drawings and portfolios with detailed Bills of Materials and dimensioning

KIC – Electrical Clerk May – August 2021

- Conducted assembling assignments involving electrical products, program keys, and packaging
- Acted as quality control for packaging sales orders and individual tasks of fellow employees
- Drafted official company certificates for cataloged units sent for shipping to customer markets
- Maintained realms of communication with coworkers in availability and assistance

# **University Teacher Assistant** – NAU, Heat Transfer

January - May 2022

- Scheduled weekly consultation meetings with professor regarding planned assignments and assessments
- Delegated with the release of upcoming homework assignments and solutions along with student Quizzes within the established scheduling of the course
- Organized system of communication with students through routine course announcements and email
- Assigned with hosting digital office hours for student consultation and assistance regarding course work

## "Micro-Wind Turbine" Design Project – Member

August - December 2020

- Collaborated in analyzing the Reynolds number on a hypothetical blade using a MATLAB script at given environment conditions and dimension limits
- Assembled a three-dimensional prototype of a micro—Wind Turbine using parts provided by team members through redesign and adjustment
- Contributed to project presentations, reports, and assignments in collaboration with members

#### **Affiliations**

## **Theta Tau Professional Engineering Fraternity**

Fall 2019 - Present

- Formulated payment plans for members as Treasurer and defined methods of payment
- Established and maintained open communication with members in developments and plans