Colin Hale-Brown

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Skills

Computer Aided Design/ Manufacturing (CAD & CAE/ CAM)

Solidworks, NX, Autodesk

Programming

Matlab, Python, C#, MySQL

Electronics Design and Manufacturing

Sensors, Power systems, Microcontrollers

Server Management and Networking

Docker, Kubernetes, Proxmox

PCB Design

Eagle, KiCAD

CNC

Mill, Lathe, 3D Printing, Waterjet, Laser Cutter

Machining & Composites

Manual Operation, Composite Layup & Post Processing, GD&T

Experience

Undergraduate Research Assistant, Oregon State University Radiation Center

Aug. 2023 - Present

Design and manufacture control systems for ongoing research. Assist in construction of research hardware.

Junior Engineer, LATERAL.systems

Jan. 2022 – Aug. 2024

Prototype and develop environmental sensing hardware to prove product viability. Use off-the-shelf hardware to quickly bring water and air sensing products to market.

Project Manager, Oregon State University OPEnS Lab

Sep. 2020 - Jun. 2023

Led the Smart Rock and Lilypad Projects. Managed a team of undergraduates to develop novel sensing hardware to assist ongoing research.

Mechanical Lead, Oregon State University OPEnS Lab

Sep. 2020 - Jun. 2023

Assisted on the Evaporometer, Rain Savor, Weather Chimes and Isotopic Sampler projects. Rapidly design and prototype hardware to prevent development bottlenecks.

Supporting Experience

ESRA Team Captain, Oregon State University AIAA

Sep. 2023 – Jul. 2024

Restarted the Experimental Sounding Rocketry Association Team and in 9 months delivered a N class, single stage rocket to New Mexico for competition. Capstone was the air brake system for the rocket.

USLA Payload Team, Oregon State University AIAA

Sep. 2019 - May 2020

Design and manufacture the frame of the robotic payload for the 2020 competition. Assist the team in prototyping and manufacturing the payload and avionics systems.

Design Captain, Pigmice Robotics #2733

May 2018 – Jun. 2019

Oversee all design, CAD, CAM, CAE for the 2019 competition season.

CAD Lead, Pigmice Robotics #2733

Sep. 2016 – May 2018

Lead the design and modeling of the robot for the 2017 and 2018 competitions.

Achievements

FRC Turing Division Finalists, Huston, Texas

2019

Engineering Inspiration Award, Lake Oswego, Oregon

2018

Education

Bachelor of Science (B.S.) Mechanical Engineering, Oregon State University

Sep. 2024

CADD Associate Program, Portland Community College

Mar. 2019

Highschool Diploma, Cleveland High School

Jun. 2019