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
- Failure Analysis (FMEA) — Material Testing, Instron Testing/ Analysis, SEM Analysis

Experience

Undergraduate Research Assistant, Oregon State University Radiation Center — Aug. 2023 – Sep. 2024

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