

Avery Rowan

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Profile

Mechanical engineer with three years of hands-on experience across product development, manufacturing, and validation — from intern contributions to owning engineering change packages end-to-end. Comfortable working across disciplines, learning new systems quickly, and translating technical findings into clear documentation for diverse audiences. Eager to apply a practical engineering foundation to infrastructure and water systems challenges in a rotational programme environment.

Experience

Systems Design Engineer at Northforge Instruments

Feb 2024 – Present

- Shortened ECO turnaround from nine days to five and cut assembly escapes by 31% across two quarters by tightening change-control and build-feedback loops.
- Reduced pilot changeover time by 18% through fixture redesign and updated work instructions coordinated with the manufacturing team.

Product Development Engineer at Meridian Motion Labs

Jan 2022 – Jan 2024

- Improved pilot first-pass build completion from 84 to 95% by resolving enclosure stack-up and cable-routing issues through prototype feedback cycles.
- Reduced enclosure assembly time by 22%; maintained design history summaries and authored release drawings across multiple product variants.

Test and Validation Intern at Helio Works

Nov 2020 – Mar 2021

- Cut test-report turnaround from three days to one by templating repeatable result summaries and standardizing evidence capture.
- Prepared test units and summarized failure trends for weekly engineering review, building habits of structured technical communication early in career.

Projects

Compact Pump Test Bench

Feb 2021 – Jun 2021

- Defined a repeatable calibration sequence and setup notes that reduced trial-to-trial variation and enabled consistent results across operators.
- Designed and built a benchtop flow and pressure test rig for small pumps — the closest candidate-owned proof of fluid-systems and test-bench work relevant to water infrastructure.

Education

Bachelor of Mechanical Engineering — Product Development and Manufacturing Systems

2018 – 2021

Harbor Institute of Technology

Graduate Certificate — Quality Systems and Root Cause Analysis

2022

Coastal Technical College

Skills

Software SolidWorks, Creo, Fusion 360, Python, MATLAB

Methods Design for Manufacture, GD&T, Root Cause Analysis, Test Planning, Design of Experiments

Domain Engineering Change Control, BOM & Release Documentation, Validation Reporting

Strengths Technical Writing, Cross-functional Collaboration