Ben Boyer

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Summary

Driven Mechanical Engineering student with renewable-energy experience. Proficient in CAD, prototyping, and design. Passionate about solving complex challenges with practical, impact-driven solutions.

Career history

CAD Designer at Energy Renaissance (Part-time)

2023 - 2025

Developed advanced battery storage units from initial concept through to manufacturing, collaborating across multidisciplinary teams.

Key responsibilities

- Designed battery storage systems using advanced CAD tools.
- · Conducted product testing and prototyping.
- Coordinated cross-functional collaboration in product development.

Achievements

- Successfully contributed to multiple projects transitioning from concept to manufacturing.
- Improved design efficiency through advanced CAD techniques.
- Increased production rates of various product lines using strategic design.

STEM Volunteer Teacher at Redhead Public School

2022

Guided primary school students through hands-on STEM learning activities focused on aerodynamics and aircraft construction

Key responsibilities

- Facilitated workshops teaching basic engineering principles and aerodynamics.
- Supervised the building and testing of balsa wood aircraft.

Achievements

Enhanced student engagement in STEM through practical, interactive projects.

Education

Bachelor of Mechanical Engineering from University of Newcastle

2019 - Present

Course highlights

- ENGG1500 Introduction to Professional Engineering 84% (Distinction)
- MECH1110 Introduction to Mechanical Engineering 95% (High Distinction)
- MECH1750 Engineering Materials 1 78% (Distinction)
- ELEC1310 Introduction to Electrical Engineering 75% (Distinction)

Key skills

Hard skills

- Computer-Aided Design (Fusion 360, Creo Parametric, Shapr3D, Onshape)
- Simulation & Analysis (ANSYS, Physical Testing)
- Manufacturing & Prototyping (3D Printing, Drafting, Sheet Metal)
- Renewable Energy Systems
- Technical Problem Solving

Soft skills

- Collaborative Project Management
- Critical Thinking and Adaptability

References

Available upon request