BRIAN BELL

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OBJECTIVE

BEng. (Hons) Mechanical with specialized skills in mechanics of materials, finite element analysis (FEA), computer-aided design (CAD), and computational fluid dynamics (CFD). Seeking an entry-level mechanical engineering position in Tampa, FL, to apply analytical proficiency and project experience in aerospace, energy, or manufacturing industries.

EDUCATION

Queensland University of Technology, Brisbane June 2025
B.Eng. Honors Mechanical | Minors in Computer Science & Finance
Overall GPA: 6.7 | First Class Honors | Executive Deans' List for Academic Excellence

EXPERIENCE

MWA Environmental June 2024 - December 2024
Cadet Engineer *Brisbane, QLD*

- Assisted in conducting noise impact assessments for residential, entertainment, and industrial developments.
- Developed Excel spreadsheets for acoustic analysis, improving the efficiency of environmental impact assessments
- Developed Python programs for task automation, including a data parser for 200+ weather stations in Australia.
- Collaborated with a team of 5 engineers to ensure project compliance with Queensland environmental standards.

PROJECTS

Critical Analysis & Refinement of the Small Punch Test June 2024 - June 2025
Queensland University of Technology *Brisbane, QLD*

- Conducted extensive research into SPT standards, theory, and FEA methodologies to guide analysis.
- Studied stress propagation in SPT with ANSYS FEA, ehancing test's ability to predict material properties.
- Developed, verified and validated a dynamic ANSYS FEA model to simulate the small punch test for various materials.

Subterranean Rover July 2024 - October 2024
Queensland University of Technology *Brisbane, QLD*

- Led 3-person team to retrofit rover for subterranean use with SolidWorks, ANSYS FEA, and hand calculations.
- Solely designed CAD parts, assemblies, and drawings for subterranean rover using SolidWorks.
- Performed hand calculations for balance, traction, and dynamics of actuated rover components.
- Managed documentation and liaised between teaching team, industry advisors, and student team for rover retrofit.

Heat Exchanger Analysis September 2024 - October 2024
Queensland University of Technology *Brisbane, QLD*

- Evaluated various heat exchangers using ANSYS Fluent CFD, optimizing thermal efficiency.
- Validated counterflow performance with data analysis and LMTD calculations.

TECHNICAL STRENGTHS

Tools	ANSYS Static Structural, SolidWorks, ANSYS Fluent, Microsoft Office
Computer Languages	Python, MATLAB, C, VBA, MySQL
Theory	Structural Analysis, Failure Analysis, Heat Transfer, Fluid Dynamics
Soft Skills	Problem Solving, Team Collaboration, Project Management, Liaison
Developing Skills	GD&T, Lean Six Sigma