BRIAN BELL

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OBJECTIVE

Mechanical Engineering B.S. candidate (Queensland University of Technology, 2025) with specialized skills in mechanics of materials, finite element analysis (FEA), computational fluid dynamics (CFD), and computer-aided design (CAD). Seeking an entry-level mechanical engineering position in Tampa, FL, to apply analytical expertise and project experience in aerospace, energy, or manufacturing industries.

EDUCATION

Queensland University of Technology, Brisbane *June 2025*
B.S. in Mechanical Engineering | Minors in Computer Science & Finance
Overall GPA: 6.7 | 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
- Created Python programs for task automation, including a weather data scraper for 200+ locations in Australia.
- Collaborated with 5 engineers to ensure project compliance with Queensland environmental standards.

PROJECTS

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

- Conducted extensive research into SPT standards and relevant theory to inform analysis.
- Studied stress propagation using SPT with ANSYS FEA, enhancing predictive maintenance in engineering systems.
- Developed, verified and validated and advanced ANSYS FEA model to simulate the small punch test.

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

- Led a team of 3 to design an unmanned subterranean rover using SolidWorks, ANSYS FEA, and hand calculations.
- Performed all design, CAD part/assembly creation, and technical drawings for the system.
- Conducted calculations for balance, traction, and dynamics of actuated rover components.

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

- Evaluated 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 Excel
Computer Languages	Python, MATLAB, VBA, MySQL
Theory	Mechanics of Materials, Structural Analysis, Heat Transfer, Fluid Dynamics
Soft Skills	Problem Solving, Team Collaboration, Project Management