

Experience

Grydale Pty LTD - August 2022 - Jan 2026

- Concept to production from initial CAD design, DFM, prototyping, verification and testing and iterating designs
- Compiled technical proposals for new products and projects, including feasibility and performance calculations
- Supported product development, cost optimisation, and engineering data management across projects
- Designed components for manufacturability with a focus on cost reduction and maintaining functionality
 - Optimised parts for CNC processes including laser cutting and CNC bend press
- Maintained and updated operation and maintenance manuals to ensure accurate documentation
- Performed finite element, structural and modal analysis on parts and structures to support design validation
- Full electrical, hydraulic and mechanical integration
- Engineering design using ISO 9001 accredited quality management system focusing on continuous improvement
- Worked managing project budgets for costing and final delivery budgets using ERP systems

Mechanical Engineer (Design & Operations Integration) - Jan 2025 - Jan 2026

- Managed ERP systems and engineering master data to streamline workflows and support information accuracy
- Complete product lifecycle management from CAD design, releasing production files (cut files and drawings), and inputting budgets/BOMs through to troubleshooting issues on the manufacturing floor, testing and final product release. Delivering multiple machines per month.
- Worked to gain 3rd party CSA and CE accreditation for dust collector product
- Full ownership of engineering master data including BOMs, budgeting, labour routing, etc.

Graduate Mechanical Engineer - April 2023 - April 2025

- Helped develop LEAN tools and undergone training in LEAN principles including 5S
- Led R&D design for complex assemblies, including the conceptualization, CAD modeling, and prototyping of a novel filter clamp mechanism
- R&D design of battery powered on-board dust collector, design of enclosure, charging infrastructure and quick attachment mechanism. Tested and verified performance for delivery of minimum viable product

Undergraduate Engineer - August 2022 - April 2023

- Developed an internal application to generate reports estimating ventilation requirements for drill and blast tunnelling using python
- Proposed electrification solutions for machinery in response to client goals for net-zero emissions in construction

Education

Queensland University of Technology Bachelor of Engineering (Hons) - 2016 - August 2023

- Major in Mechanical Engineering and Minor Engineering Mathematics (computational). Completed my honours project in computational modelling of sugarcane deformation during the milling process using multi-physics modelling in LS-DYNA (ANSYS) which was adapted for publication.

Tools/Technical Skills

CAD Software: Solidworks, AUTOCAD, Inventor, Onshape, Fusion360

Analysis Software: Inventor NASTRAN, ANSYS Workbench (Static Structural, Fluent), LS-DYNA (LS-PREPOST), MATLAB and Python

ERP: Business Central - WIISE, ExpandIT, MS 360 and included Apps

Documentation: MS 365 (Teams, SharePoint, Excel, Word, Power BI dashboards).