



Josh Garry
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(61) 492 877 393



Online Portfolio



Bachelor of Engineering

Joshua Garry

Mechanical Engineer

About Me I am a mechanical engineer (bachelors with honors) with over 2 years of engineering experience. In my current role, I design products, provide support to the workshop on heavy fabrication works, produce drawings and work instructions, assist with production planning and (occasionally) estimate. I have a focus on familiarizing and understanding the Australian Standards, working closely with various stakeholders, estimators, boiler-makers, fitters and suppliers to develop products, meet production deadlines and refine process.

For some samples of work, see my [portfolio](#).

Education

2025 - 1 Week, LEAP Australia

Ansys Mechanical Training Seminar for Advanced FEA Techniques (FMS Sponsored)

2018 – 2023, University of Southern Queensland

Bachelor of Engineering Honors (Mechanical)

2014 – 2017, Toowoomba Christian College

High School

Experience

July 2023 - Present, Mechanical Engineer, Field Mining Services Group

Key responsibilities:

- Developed concepts to meet the requirements of clients or internal divisions of FMS.
- Analyzed designs using hand calculations, FEA and AU Standards, documenting results for RPEQ certification approval.
- Reverse engineered mining equipment and structures using 3D scan data and software tools.
- Traveled to mine sites to perform 3D scanning of equipment and structures using in house scanner.
- Provided drafting support to the FMS Workshop for heavy repair or fabrication works.
- Managed material procurement for heavy repair projects of mining equipment, tracking variations against the tendered Scope Of Work.
- Produced Job Packs and Work Instructions for upcoming Workshop jobs.
- Estimated fabrication jobs on occasion.
- Created software to automate or streamline tasks in CAD for productivity and Quality Assurances.
- Lead and Encouraged two way communication and feedback between the teams in office and on the floor to build a culture of respect, understanding and continuous improvement.
- Collaborated with stakeholders, team members, subcontractors and the FMS Workshop labor force in meetings and on the floor to to acheave the best result possible.



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Sync Motor Lifting Jig



Load Roller Change Out Jig



Workshop Experience

Notable Projects:

- Designed a low profile, low cost track frame load roller change out jig that reduced assembly time for excavator track frame overhaul, that went on to become a best selling product.
- Designed a set of rail beam transport stands dual use as a double lifting arrangement for BHP's Hay Point coal terminal dump station.
- Designed a specialist lifting jig for drag line synchronous motor replacement around the limited space in the housing.

November 2020 - April 2023, Draftsman ERP Coordinator, Downs Sheet Metal and Janke Australia

Key achievements and responsibilities:

- Gained experience in design for
 - Sheet metal manufacturing
 - Heavy agricultural equipment
- Improved drafting skills such as;
 - In context modeling
 - File and database stability
 - Revisioning and standardizing
- Drafted manufacturing drawings, DXFs and used Amada Sheetworks for press break programming.
- Produced Gcode for live milling using SolidWorks CAD/CAM.
- Assisted with data entry of new ERP software in platform and compile provide accurate costing for products.
- Coded a graphical user interfaced tool to help code and decode internal company part codes.
- Collaborated on a Business Capability Statement, external graphic designers for a trades show, communicating DSM's services and manufacturing capabilities.
- Developed software to extract and import information from CAD sources into the ERP software, deducing critical costing information from geometric and parametric features.
- Completed a sub-contracted design job for a client resulting in 10k worth of billings.

2015 – 2020, Trades Assistant, Bettabuilt Fabrication

Worked in many holidays through high school in the workshop assisting boilermakers. In this time I am grateful to have gained skills in;

- Welding
 - MIG DC and pulse
 - stick
- Fabricating (tacking out)
 - beam and rafter assemblies
 - roller door tracks
 - railings



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Code Tool



Capability Statement



UAV Challenge

Qualifications

- Standard 11
- Confined Spaces
- BMA (Daunia) Site Inducted
- Working at Heights
- BMA Core Inducted

CAD Software Skills

- Inventor
- Solid Edge
- Advance Steel
- CloudCompare
- SolidWorks
- PTC Creo
- FrameCAD
- Meshlab
- Sheetworks
- AutoCAD
- Revit

Software Development Skills

- Python
- VBA
- Matlab
- Gcode

Presentations

Drafting Presentation USQ

Presentation a 30 minute talk to the solid modeling class at USQ. The talk focused on my experience working in a drafting role with an emphasis on the legal aspects and ramifications of producing drawings for subcontracting.

Awards

2017, UAV Aerial Recovery Challenge

Joint team winner of the international UAV aerial recovery high-school challenge (\$5500 winnings). [2016 - 2017, Mechatronics Award, High-School](#)

Won the school Mechatronics award, consecutively (years 11 & 12).

Interests

- Road Bikes
- Scuba Diving
- FPV Drones
- Software Programming

References

[Micheal Samson \(+61\) 421 854 113](#)

QLD Regional Planning and Estimation Manager at FMS Group

[Leon Else \(+61\) 499 565 301](#)

Business Development Manager at FMS Group

[Will Keogh \(+61\) 432 577 017](#)

Principle Engineer RPEQ at FMS Group

[Dr Khalid Saleh \(+61\) 4064 999 24 Khalid.Saleh@usq.edu.au](#)

Professor (Mechanical Engineering) and lecturer at USQ

Taught me Solid Modeling, programming with Matlab and Advanced Thermodynamics.

[Michael Pearson \(+61\) 429 623 219](#)

Owner of Janke Australia and Downs Sheet Metal