S A M R A T M A N D U G U L O J U

GRADUATE ENGINEER

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Professional Summary

A highly motivated and career-driven Graduate Mechanical Engineer offering a genuine passion for engineering, demonstrating a flexible ‘can do' attitude and an innovative approach to solving problems, maintaining a high level of professionalism throughout.

Technical Skills

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| **CAD Tools:** SolidWorks, CREO, Autodesk Inventor and AutoCAD  **Programming Language:** MATLAB  **Simulation Tools:** ANSYS Mechanical and SolidWorks Simulation | **Skills and Interests:** Reverse Engineering, Reviewing 2D Drawings  **Machining and Welding Tools**: Lathe, Milling, Angle grinders, MIG and TIG welding, Drill pressers  **Other Tools:** Microsoft Office Suite, Microsoft Project |

Professional Experience

**Customer Solution Specialist** Dec 2020- Present

Myagedcare, Department of Health, Australia

* Collaborated with staff members to enhance customer service experience and exceed team goals through effective client satisfaction rates.
* Maintained customer satisfaction with forward-thinking strategies focused on addressing customer needs and resolving concerns.
* Documented and detailed calls and complaints using call center's CRM database.
* Continuously meeting and exceeding the set KPI targets and contributed to the team success.
* Multi-task, listen and performed other tasks to achieve the desired results.
* Building relationships with clients over the phone and demonstrated outstanding customer skills
* Exhibited high energy and professionalism when dealing with clients and staff.

**Engineering Trainee** April 2018- June 2018

Ashok Leyland Inc, India

* Completed a practical placement learning about Ashok Leyland which is among fortune 500 companies.
* As part of a team of ten, reviewed the basic principles, functionalities, technologies and fault diagnostics of commercial vehicles.
* Assembled and disassembled different gearboxes and braking mechanisms and craft shanks.
* Learnt the basic mechanics and functions of 2-wheeler and other aggregates, differing suspensions and fuel injection systems and the auto electrical and electronic circuits used within them
* Read and interpreted blueprints, technical drawings, schematics and computer-generated reports.
* Tested prototypes and standard products and wrote reports to document results.
* Developed, prepared and reviewed reports and studies to identify and recommend engineering solutions.
* Applied mathematical skills and understanding of engineering principles to design new products, tools and systems.
* Drafted 2D and 3D designs, using both SolidWorks and AutoCAD software.

University Projects

**Mechanical Engineering Student**

* Dissertation: Quasi-static model of a tendon-cable actuated robotic finger. Designing and developing a quasi-static model of the robotic finger analysing the frictional forces associated when using a tendon to actuate the force.
* Thesis: Need for Social Robots. Understanding the effective use of robots for everyday social use and helping the needy within aged care facilities, hospitals and day cares centres.
* Collaborated with a team of six people to design the E Elevators, an evacuator elevator proposed by our team for fast evacuation of people during a high-rise building fire. Performed calculations according to standard procedures.
* Conducted cost-effective experiments with prototypes, documented results and delivered presentation to peers and professor.
* Documented products and processes using SolidWorks, AutoCAD and ProjectWise to document release notes and designs.
* Studied manufacturing processes to improve overall knowledge.
* Developed skills to effectively liaise with internal and stakeholders, focusing on delivering exceptional project outcomes, whilst consistently meeting and exceeding team goals.

Education

University of Wollongong | Wollongong, NSW Aug 2020

Master of Engineering in Mechanical Engineering

* **Relevant Coursework:** Engineering Computing, FEM, Advanced Manufacturing Process, and Strategic Management for Engineers and Technology
* **Distinction** in Engineering Research Methods, Integrated Manufacturing Systems, and Professional Communication and Engineering Workplace Practice.

Jawaharlal Nehru Technological University | India May 2018

Bachelor of Technology in Mechanical Engineering

* **Graduated in Top 5**
* **Relevant Coursework:** Material Science and Metallurgy, Applied Thermodynamics, Fluid Mechanics, Kinematics of Machinery, Engineering Dynamics

Personal Project

**National Kart Racing Championship (NKRC)**

* As Captain of a team of 20, used SolidWorks software to design, develop and manufacture a lightweight Go-Kart vehicle for racing purposes.
* Performed extensive research and analysis around varying chassis designs, selecting the appropriate design using Ansys software.
* Managed all budgets and expenditures throughout the process, utilizing a $5000 grant to cover manufacturing costs.
* Sourced the lightest materials and accessories to improve the overall performance of the vehicle by 20%, reaching speeds of 70km/hr on the racetrack.
* Completed the project within 5 weeks and two months ahead of schedule.
* The Go-Kart vehicle finished within the Top 10 racers of 174 teams and 3rd in a traction test at national competition level.

Volunteer and Leadership

**NGO-Street Cause, India**

* A dedicated group helping disadvantaged individuals and underprivileged children gain access to education and necessary facilities.
* Provided free educational classes up to 5th standard.
* Renovated, provided books and donated sports equipment to underdeveloped schools in remote areas.
* Acted as President for over two years, managing a team of 50 people and gaining numerous NGO Awards.

**Volunteer- Viva La Gong Festival**, **Wollongong, NSW**

* Helped to organise and manage various events for the festival.
* Cooperated, coordinated, and communicated with the stall holders to make sure everything was functioning smoothly.

Organizations

* Engineers Australia
* Former member of Street Cause- GRIET
* Former member of Society of Automotive Engineers (SAE)
* Former member of Society of SME

Certificates

* Certification of SolidWorks software
* Completion Certificate from Ashok Leyland
* Participation Certificate from NSDC
* Certificate of Service from Street Cause Hyderabad
* Engineering: Undergraduate & Masters Asia Virtual Experience Program
* Azure fundamentals learning path

Working Rights

* Temporary Graduate Visa, Subclass-485 holder. This Visa is valid for two years and can be extended for one year.
* In the process of applying for Permanent Residency.

Working Rights

* Referees available upon request.