Yug Shah

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Education

Stanford University — San Francisco, CA
Master of Science in Mechanical Engineering; GPA: 3.81/4.0 — *Sept 2023 – June 2025 (Expected)*

Pandit Deendayal Energy University — Gandhinagar, India
Bachelor of Technology in Mechanical Engineering; GPA: 9.67/10.0 (3rd among 200+ students) — *Aug. 2018 – June 2022*

Technical Skills

Manufacturing Processes: Lean Manufacturing, Six Sigma, 5S, Kaizen, Statistical Process Control (SPC), CNC Machining, Injection Molding

Software and Tools: AutoCAD, SolidWorks, Fusion 360, ANSYS, SAP ERP, MATLAB, Python

Quality Management: FMEA, Root Cause Analysis, Continuous Improvement, ISO 9001:2015, Process Flow Mapping

Data Analysis and Simulation: Minitab, Tableau, Excel (Advanced), Simulation in Manufacturing Systems

Experience

Rajhans Plastic Machinery — Ahmedabad, India
Junior Manufacturing Engineer — *Feb 2021 – July 2021*

- Optimized workflows, reducing production costs by 15% and waste by 10%.
- Assisted senior engineers in maintaining automated machinery, reducing downtime and defects by 12%.
- Monitored production data to identify process improvements and ensure smooth operations.

Pioneer Engineering Services — Ahmedabad, India
Manufacturing and Design Engineer — *Aug 2021 – Dec 2023*

- Improved operational efficiency by 25% and reduced downtime by 20% through automation integration.
- Led cross-functional teams, increasing throughput by 15% and reducing defects by 20%.
- Reduced lead time from prototype to production by 10% through collaboration with R&D teams.

Star Pops Pty Ltd — Pretoria, South Africa
Lean Manufacturing Engineer Intern — *July 2024 – Sept 2024*

- Increased productivity by 36% and reduced downtime by 25% using lean manufacturing techniques.
- Cut material waste by 18% and reduced production costs by 20% through process improvements.
- Collaborated across teams to boost efficiency, contributing to a 12% market share growth.

Projects

Implementation of Lean Manufacturing Principles for Cost Reduction — Jan 2023 – Mar 2023

- Led a cross-functional team to implement Lean Manufacturing principles, including **5S** and **Kaizen** events, achieving a **20% reduction** in production costs and a **30% increase** in operational efficiency.
- Performed **Value Stream Mapping (VSM)** to eliminate non-value-added activities, reducing material waste by **15%** and cycle times by **10%**.

Automation of Quality Control in Manufacturing — Aug 2021 – Dec 2021

- Developed an **Automated Optical Inspection (AOI)** system using **Python** and **OpenCV**, increasing defect detection rates by **20%** and reducing manual inspection times by **25%**.
- Implemented machine learning algorithms to classify defects with **95% accuracy**, integrating the system with existing **PLC** and **MES** for real-time monitoring.

Design and Implementation of a Flexible Manufacturing System — Feb 2022 – Apr 2022

- Engineered a **Flexible Manufacturing System (FMS)** utilizing **CNC machining centers** and automated material handling, increasing production flexibility by **30%**.
- Applied **Single-Minute Exchange of Dies (SMED)** techniques to reduce changeover times by **20%**, enhancing **Overall Equipment Effectiveness (OEE)**.