ROHIT J. PATEL

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EDUCATION

Clemson University — **Clemson, SC**
Master of Science in Mechanical engineering | *GPA:3.66/4.0* — *Aug'24 – Expected May'26*

Savitribai Phule Pune University — **India**
Bachelor of Engineering (Mechanical, 1st Division) | *GPA:3.2/4.0* — *Jun'13-May'18*

WORK EXPERIENCE

Gabriel India Ltd., India *Sr. Manufacturing Engineer* — *Sep 2023- May 2024*

- Enhanced productivity across **13 assembly lines** by conducting **time studies** to identify bottlenecks and reduce idle time, leading to a **20% increase in output per shift**, a **25% reduction in takt time** through optimized workflows, and a **25% acceleration in production rates** by balancing workloads and improving coordination through **cross-functional teamwork**.
- Engineered and standardized production processes for **Shock Absorbers** and **Front Forks dampers**, achieving **$18,000 annual savings** and **$360 per batch** through **cycle time optimization**, **tooling enhancements**, and **process redesign** to improve efficiency and reduce waste.
- Redesigned resource allocation strategies across multiple production units, generating **$27,000** in cost savings by **reducing labor idle time**, streamlining **material handli**ng to cut waste, and **minimizing machine downtime** through enhanced scheduling and maintenance practices.
- **Orchestrated assembly line readiness** for new model introductions by leading cross-functional collaboration with **Manufacturing Engineering (ME) teams**, conducting **process capability studies**, and implementing **line balancing** to optimize production flow.
- Reduced launch lead times by **15%**, decreased defect rates by **10%**, and enhanced equipment efficiency by improving **machine setup protocols** and **tooling accuracy**, resulting in a **5% increase in overall throughput** during ramp-up.
- **Optimized manufacturing processes** by updating **PFMEA** to prioritize failure modes, conducting **gage R&R studies** to enhance measurement system accuracy, and applying **Six Sigma methodologies** (8D, DOE) to ensure robust process capability, reducing **customer complaints by 10%** and achieving **$95,000 in cost savings** through minimized rework, scrap, warranty claims, and improved product quality standards.
- **Led the design, development, and commissioning of a production line**, incorporating advanced automation, workflow optimization, and preventative maintenance strategies to ensure high equipment reliability. Achieved a **20% throughput increase** and **$150,000 annual labor cost reduction** by minimizing downtime, reducing non-value-added activities, and improving resource allocation.
- Earned recognition for cost reduction initiatives and efficiency improvements through data-driven headcount optimization by **Newcomer Excellence Award** for Q3 & Q4 of FY 2023-2024.

Orbital Systems (Bombay) Pvt. Ltd., India *Jr. Mechanical Design Engineer* — *Aug 2022- Aug 2023*

- Developed and customized Rotary Orbital Riveting machines and Industrial Automation projects based on **customer RFQs**, integrating **ergonomic design principles**, adherence to **functional requirements**, and industry standards to ensure optimal performance.
- **Managed end-to-end project lifecycles**, encompassing **cost optimization**, **design conceptualization**, and **strategic component sourcing**, achieving a **15% reduction in material costs** and a **5% improvement in lead time**.
- **Designed innovative tooling and fixtures** to enhance assembly line productivity, achieving a **20% efficiency boost** through **cross-**functional collaboration and data-driven design enhancements.
- Directed comprehensive industrial automation projects, overseeing **operation sequencing**, **cost estimation**, **quotation development**, **design approvals**, and **material coordination** to deliver turnkey solutions.
- Streamlined interdepartmental workflows by resolving shop floor challenges, conducting regular project reviews, and providing on-site technical support while creating detailed **pneumatic and hydraulic circuit documentation** to ensure seamless implementation.

Sukhdhan Automation Pvt. Ltd., India, *Mechanical Design Engineer* — *July 2018- July 2022*

- Designed custom **industrial automation solutions** for various **ODMs/OEMs**, successfully integrating machines into client facility.
- Engineered motion control elements, including motor control systems and precision mechanics for enhanced machine performance.
- Developed comprehensive operation sequences and **cycle time sheets** based on process requirements, ensuring optimal machine efficiency.
- Created detailed part and assembly drawings, specifying **GD&T**, roughness values, heat treatment, surface treatment, and machining processes according to material properties and application requirements.
- Formulated machine control strategies and configured **HMI** and **electromechanical components** to meet specific automation needs.
- Supervised machine fabrication and installation at client sites, ensuring adherence to design specifications and quality standards.

TECHNICAL SKILLS

- **CAD:** SolidWorks, SOLIDEDGE, AutoCAD (Proficient), CREO, ANSYS (Working Knowledge), MINITAB, MATLAB, NX
- **Core Competencies:**

Six Sigma, Lean Operations	Quality tools (8D, 5 Whys, A3 reports)	Process capability studies
Tooling optimization strategies	Plant layout management	Time Studies, Cost reduction strategies
Tooling design, 3D Modelling	PQCDSM metrics optimization	SheetMetal bending & EDM machining
PFMEA and DFMEA	Feasibility Assessment	Machining (CNC, VMC), Welding

- **Design and Analysis Skills***: Machine Element Design, Finite Element Analysis (FEA), Dimensional Drawings, Assembly Drawings, Part Drawings, Bill of Material, Additive Manufacturing,*