ARPAN PATEL

MANUFACTURING ENGINEER - Process Optimization, Lean Manufacturing & Production Planning

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SKILLS

- **Manufacturing & Processes**: Sheet-metal stamping, TIG/MIG welding, fixture validation, trial builds.
- **Process & Quality**: Root cause analysis, corrective actions, DFM/DFA/DFS, tolerance stack-up, GD&T, ISO.
- **CAD & Documentation**: Siemens NX, CATIA V5, model updates, drawing revisions, BOM creation, ECN/ECR.
- **Production Support**: Vendor coordination, shop-floor alignment, OEM engineer, dimensional fit-up.
- **Automotive Service**: OEM diagnostics, repair procedures, workflow optimization, structured communication

WORK EXPERIENCE

Technical Lead **May 2023 – Present**
Mr. Lube Canada *Ontario*

- Diagnosed 200+ mechanical & electrical faults using structured RCA methods, improving repair accuracy by 35% & reducing repeat service cases via standardized troubleshooting & OEM-compliant documentation practices.
- Ensured 100% adherence to OEM repair standards across 300+ service jobs, reducing safety violations by 50% & improving customer retention via consistent execution of validated maintenance procedures & inspections.
- Directed daily workflow for 10+ technicians, optimizing job allocation and reducing turnaround time by 25% through structured task prioritization and real-time coordination across service bays and diagnostic stations.
- Trained 5 junior technicians on OEM procedures and diagnostic tools, reducing rework by 40% and improving service through hands-on instruction and performance tracking across scheduled maintenance operations.
- Led communication between service advisors and technicians for 100+ cases monthly, improving issue resolution speed by 30% and enhancing operational efficiency through structured feedback and repair documentation.

Sheet Metal/BIW Design Engineer (Launch & Plant Support) **September 2020 – January 2023**
Munjal Auto Industries Ltd. *India*

- Integrated BIW closure components into 3 vehicle platforms by collaborating with OEM teams, resolving 50+ fit-up issues and improving launch readiness through the interface validation and dimensional benchmarking.
- Facilitated 20+ pre-production builds by resolving assembly gaps and flushness deviations, improving alignment accuracy by 45% through tolerance stack-up analysis and GD&T-based corrective modeling of BIW structures.
- Processed 100+ ECN/ECRs & updated CAD models and CBOMs, reducing revision cycle time by 30% and improving cross-functional communication between design, manufacturing & supplier teams during launch phases.
- Conducted feasibility studies for 10+ BIW components, proposing design changes that reduced weld complexity and improved assembly throughput by 20% across hood, fender, and roof structures during pilot builds.
- Facilitated supplier collaboration to resolve 25+ dimensional deviations, improving part fitment accuracy by 40% and reducing rework through systematic review and drawing clarification during plant support activities.

Mechanical Design Engineer (Manufacturing Support) **August 2019 – September 2020**
Lasercut Steelworks Pvt. Ltd. *India*

- Delivered 2D/3D CAD drawings in Siemens NX for 50+ sheet-metal components, improving manufacturability & reducing rework by 30% via design validation & production-ready modeling aligned with fabrication constraints.
- Collaborated with shop-floor teams to validate 25+ fixtures and weld paths, ensuring tolerance compliance and reducing pilot build errors by 40% through structured feedback loops and iterative design corrections in CAD.
- Led root cause analysis during 10+ trial builds, identifying geometric deviations and process failures, implementing corrective actions that improved first-pass yield by 35% across packaging and textile machinery assemblies.
- Standardized ISO 9001:2015 documentation workflows for design and manufacturing, reducing audit nonconformities by 50% and improving traceability across 100+ component revisions and engineering change records.
- Coordinated with 15+ vendors to resolve drawing deviations and clarify tolerance specifications, reducing part delivery delays by 25% and improving dimensional compliance across outsourced sheet-metal components.

EDUCATION

Master of Engineering, Mechanical Engineering 2024
University of Windsor
Bachelor of Engineering, Mechanical Engineering 2019
Gujarat Technological University

CERTIFICATIONS

- **Geometric Dimensioning & Tolerancing (GD&T) – Certification**
- **Lean Six Sigma Green Belt – Certification**
- **Plastic Product Design using CATIA V5 and Siemens NX – Skill-Lync (Online)**