TUSHIT DEV MAHESHKUMAR

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SUMMARY:

Result driven Quality Engineer with extensive experience leading IATF 16949 audits and contributing to successful certification at Yanfeng Automotive Interiors. Proficient in PFMEA, 8D, APQP, PPAP, and continuous improvement initiatives. Proven track record of reducing defect rates by 30% and boosting operational efficiency by 20%. Strong focus on compliance and cross functional collaboration to drive quality excellence and process optimization.

EDUCATION

State University of New York at Buffalo, GPA: 3.75/4 **Sep2024-May2026**

- Master of Science in Industrial Engineering,

Sri Venkateswara College of Engineering, GPA: 3.5/4 **Aug2020-March2024**

- Bachelor of Engineering in Mechanical Engineering,

TECHNICAL SKILLS

- **Industry Tools:** Six Sigma, Kaizen Methodologies, 8D, Data Analysis and Visualization, EOQ, 5WHYS, MODAPTS, Warehouse Inventory Management, BOM, WMS Reporting, Supply Chain Optimization, Demand Planning & Forecasting, SPC, PFMEA, Root cause analysis, 5S, Value Stream Mapping, PFMEA,
- **Software Tools:** X-RiteColor Master, SPC Express, IV Navigator, Minitab, MATLAB, CAD, Fusion, Power BI, Tableau, Python, Microsoft Office Suite (Excel, Word, PowerPoint, Outlook, Teams)

MSIE RELATED COURSEWORK

- Facility Layout Design, Supply Chain Management, Automotive Manufacturing Systems, Manufacturing Systems, Production Planning & Control, Quality Control, Applied Thermodynamics, Six Sigma Process, Human Factors and Ergonomics, Lean Manufacturing, Supply Chain Analytics, Project Management.

PROFESSIONAL EXPERIENCE:

Yanfeng Automotive Interiors, Quality Engineer Intern, Michigan **May2025-Dec2025**

- Preparation and on-time delivery of new product Launch related Customer Production Part Approval Process (PPAP) packages
- Internal and supplier quality corrective actions (8D's) meet the required timing, quality and format.
- Lead Internal Audits, report audit findings and ensure timely close out of any required corrective actions.
- Conduct workshops, educating employees on their impact in the quality process and continuous improvement.
- Complete initial capability studies are properly performed and documented for initial builds and product changes affecting special characteristics, and that Customer and internal requirements are met (or a written Customer deviation is obtained).
- Create and Implement inspection plans and containment plans are developed for Launch.
- Collaborated with engineers in the development of projects, ensuring all aspects of project met client needs and quality standards.
- Ability to work with teams and lead decision-making processes in a team environment.
- Comply to IATF, IOS, and health and safety standards
- Perform other duties as assigned by manager.
- Establish and maintain exceptional customer facing relationships, resulting in excellent customer satisfaction.
- Maintain customer complaint log and facilitate and participated in the corrective action process.
- Facilitated IATF audits, contributing to successful outcomes and preventing a $8,000 special audit.
- Assigned as temporary Supplier Quality Engineer, as needed, including supplier selection, kick-off meetings and process sign-off.
- Acts as Statistical Process Control (SPC) and Engineering Change/Process Change coordinator.
- Facilitate Failure Modes and Effects Analysis (FMEA) with Engineering in conjunction with advanced quality-planning activities and monitor the status throughout production life.

Caterpillar Inc (Building Construction Products), CI Intern **Jan2024-Mar2024 | Jul2022-Aug2022**

- Reduced material handling time by 25% by designing a new assembly layout with AGVs and kitting trolleys
- Improved operator productivity by 18% by eliminating 12 non-value-added steps through motion studies
- Enhanced workplace safety by lowering ergonomic risk scores by 30% and aligning processes with Industry 4.0 standards
- Eliminated component misplacements by creating a Part Genealogy tracking system for end-to-end traceability
- Reduced retrieval time by 20% on 500+ parts by executing ABC Analysis and optimizing kitting workflows
- Performed multiple program and process audits to ensure efficient utilization of resources, process flow, and compliance with company safety, environmental and quality standards
- Comply to IATF, IOS, and health and safety standards

Technip Energies, Mechanical Engineer Intern, Doha **Jun2023-Jul2023**

- Developed mechanical datasheets for rotating equipment including pumps and valves, detailing specifications, operating conditions, and performance parameters.
- Conducted fluid flow analysis focusing on viscosity effects and pump RPM optimization to support system efficiency and reliability.
- Collaborated with the structural engineering team to assist in plot plan development and hazardous area classification for offshore facilities.
- Contributed to material engineering by calculating weld thickness, selecting appropriate bolt diameters, and finalizing steel grades for structural integrity.
- Supported piping design activities using Caesar II software, aiding in stress analysis and layout validation for complex piping systems.
- Participated in offshore case study evaluations, contributing to feasibility assessments, objective analysis, and observation reporting.
- Prepared site survey reports and preliminary engineering drawings to support project planning and execution.
- Ensured adherence to ISO 9001 standards and internal quality protocols, promoting compliance and continuous improvement across engineering deliverables.

PROJECTS:

Defect Reduction in Tire Manufacturing using DMAIC, JK Tyres, India **Jan2022–Feb2022**

- Collected and analyzed quality control data using the DMAIC problem-solving methodology to improve product quality.
- Optimized process parameters, leading to a 30% reduction in defects and improved manufacturing consistency

Quality control in manufacturing bolts, Kun Aerospace Pvt Ltd, India **Jan2022–Mar2022**

- Implemented SPC tools (X-bar R chart, Gage R&R, ANOVA) to monitor and control machining processes, leading to a 15% improvement in bolt quality and 10% reduction in cycle time.
- Conducted DFMEA for a new bolt design, collaborating with design and production teams, which improved first-pass yield by 8%

Go-Kart Design Challenge (GKDC) **Nov2021–Aug2022**

- Designed Go-Kart chassis using CAD and performed Finite Element Analysis to evaluate and enhance structural integrity, improving strength and reliability for competitive performance

CERTIFICATIONS:

- Certificate 1: Six Sigma Green Belt (IISE)
- Certificate 2: Control Plan (AIAG)