

Jagadeesh Rahul Rajendran

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PROFESSIONAL SUMMARY

Manufacturing-trained mechanical engineer with 2+ years of cross-functional experience in process optimization, operational efficiency, and quality improvement across automotive OEM and technology environments. Skilled in Lean Six Sigma (DMAIC), Value Stream Mapping, Root Cause Analysis, and Kaizen to reduce cycle times and eliminate waste. CAPM, Scrum Master, Certified in PLC programming, and Lean Six Sigma Green Belt.

CORE COMPETENCIES

Manufacturing & Operations: Lean Manufacturing, Six Sigma (DMAIC), Kaizen, 5S, JIT, Value Stream Mapping (VSM), Process Optimization, Cycle Time Reduction, Production Planning, Continuous Improvement, Takt Time Analysis.

Quality Engineering: Root Cause Analysis (RCA), FMEA, Statistical Process Control (SPC), CAPA, Process Validation, Defect Reduction, Standard Operating Procedures (SOPs).

Automation & Tools: PLC (Allen-Bradley, Siemens, ABB, Omron), SCADA (Ignition, CX Supervisor), AutoCAD, CATIA V5, PTC Creo, SAP PP, ProModel, Industry 4.0

Project & Data: CAPM (PMI), Scrum (PSM I), Agile, Cross-Functional Coordination, Vendor Management, Risk Mitigation, MS Excel, MS Project

PROFESSIONAL EXPERIENCE

VySystems (VY Venture Group)

Santa Clara, CA

Product Specialist – Operations

Aug 2024 – Present

- Fragmented execution across distributed onsite/offshore teams caused delivery delays, rework, and inconsistent process adherence across multiple concurrent product lines.
- Supported requirements gathering, timeline tracking, and risk identification for product and engineering activities, helping teams maintain execution discipline across onsite and offshore collaboration. Streamlined coordination between technical and business stakeholders by clarifying action items, improving follow-through, and reducing friction in day-to-day execution.
- Improved delivery predictability across parallel workstreams, reduced cross-team rework through standardized process documentation, and built a repeatable operational framework

VyVOXEL Inc.

Santa Clara, CA

Process Optimization Engineer (Intern)

June 2023 – April 2024

- Product workflows suffered from requirements-to-delivery inefficiencies contributing to 15–20% excess cycle time, recurring rework, and spec-to-output misalignment.
- Mapped end-to-end workflows using Value Stream Mapping (VSM), identifying non-value-added steps across requirements, handoff, and delivery stages. Performed Root Cause Analysis (RCA), tracing defects in documentation; redesigned requirements translation with structured templates. Assisted in creating SOPs for cross-functional onboarding and assisted weekly alignment meetings with shared status dashboards.
- Reduced requirements-related rework and improved delivery accuracy. Shortened POC turnaround times. Created scalable SOP frameworks adopted as the team's standard process documentation.

Renault-Nissan Automotive India Pvt. Ltd.

Chennai, India

Manpower Strategic Planning Intern

May 2019 – Jul 2019

- Assembly line experienced excessive cycle times and workforce allocation inefficiencies, increasing per-unit cost.
- Analyzed production floor layouts using time-motion studies. Applied Kaizen and JIT to redesign process flow, reallocating manpower based on takt time calculations and workstation balancing. Validated changes through pilot runs with production supervisors.
- Reduced production cycle time by ~10% per part on a live assembly line using continuous improvement methodology.

Ford Motor Company

Chennai, India

In-Plant Trainee

Dec 2018

- Completed plant-floor training covering assembly operations, quality inspection checkpoints, production scheduling, Kaizen, 5S, JIT, and Industry 4.0 monitoring systems.

TECHNICAL PROJECTS

Predictive Maintenance Using ML (MS Capstone, 2024) – Applied ML models to KDF 600i sputter machine power fluctuation data. Built predictive maintenance framework using AI Langchains (GPT 3.5 Turbo) targeting voltage anomalies; projected ~20% reduction in maintenance costs. Developed a real-time visualization dashboard.

Nano-Material Enhanced Coolants (B.E. Final Project, 2020) – Led team of 4 to formulate CNT-infused industrial coolants validated with KD2 Pro thermal equipment. Achieved ~15% thermal conductivity improvement over conventional coolants.

CO₂ Reduction Exhaust Module (2019) – Designed MEA-based absorption prototype for automotive exhaust CO₂ capture, demonstrating emissions reduction feasibility.

EDUCATION

MS, Engineering / Industrial Management – California State University, East Bay

Aug 2022 – May 2024

B.E., Mechanical Engineering – Anna University, Chennai

Jun 2016 – Nov 2020

CERTIFICATIONS

CAPM (PMI) | Professional Scrum Master – PSM I (Scrum.org) | Lean Six Sigma Green Belt | SAP PP | ProModel
Certified PLC Programmer (Rack & Industrial) | Mechanical design (CAD, Pro-E, CATIA) | IBM GenAI | AI Prompt Engineering