

Rohith Kumar Vetrivel

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WORK EXPERIENCE

Doosan Bobcat, WI, USA

January 2025 – August 2025

Manufacturing Engineering Co-Op

- Designed 14 fixtures using SolidWorks/Creo, improving cycle time by 18% and eliminating 2.3 hours of weekly downtime.
- Led traceability project, ensuring 100% frame tracking and cutting rework by 12% through cross-functional efforts.
- Drove Advanced Manufacturing in NPD by resolving 7 DFM issues and optimizing pilot builds for production readiness.
- Optimized tool room layout and production flow, cutting retrieval time 40% and ensuring on-time pilot batch delivery.
- Built barcode-enabled inventory app with Power Apps/Flow for real-time tracking and automated low-stock email alerts.
- Performed time studies and updated work instructions for CAT lane during SAP-to-Oracle transition.
- Supported pilot build issue resolution using root cause analysis, reducing repeat defects by **10–15%**.

MM Motors Mahindra, India

May 2020 – December 2023

Operations & Supply Chain Manager

- Optimized OEM material flow across operations, reducing stock discrepancies by 10% and improving material readiness
- Implemented ABC and EOQ in SAP ERP, improving inventory turnover by 68% and reducing safety stock by 15%
- Streamlined BOM and warehouse layout, reducing excess stock by 65% and improving part identification by 25%
- Led RFQs and supplier selection, reducing inbound lead times by 22% and preventing stock buildup across locations.
- Improved demand forecasts shared with the main plant by 20% to minimize dead stock and supply gaps proactively.
- Built Tableau dashboards to track inventory and supplier KPIs, improving process efficiency by 15% across operations.
- Collaborated with suppliers and internal teams to resolve part quality and fitment issues, reducing resolution time by 20%

Staan Biomed Engineering, India

June 2019 – July 2019

Lean Manufacturing Engineering Intern

- Applied 5S and Gemba walk to organize medical inventory, improving traceability and cutting retrieval time 30%.
- Used SPC charts and VSM to reduce scrap 40% and boost rotor throughput in medical device production.
- Performed GR&R and root cause analysis to improve quality and reduce defects in medical device assembly.
- Supported process standardization by updating work instructions and inspection checks to improve assembly consistency

PROJECTS

E2E Supply Chain Optimization(SAP S/4 HANA)

- Simulated manufacturing and logistics for 15 products, using Tableau and SAP for real-time scheduling and forecasting
- Improved production decisions and demand alignment, resulting in a 33% increase in simulated profit.

Supply Chain Network Flow Modelling for Chemical Foam Manufacturers

- Built a MILP model for facility location, reducing projected logistics and fixed costs by \$21M across 15 nodes.
- Applied stochastic Newsvendor model to optimize inventory levels and improve service rate by 18%.

Inventory Cost Optimization

- Streamlined BOM using ABC-XYZ and EOQ analysis, enabling JIT for 42 low-turn SKUs and improving stock efficiency.
- Executed markdown strategy, cut carrying costs by 28% and recovered \$35K working capital from obsolete inventory.

Road Accident Analytics Dashboard (Tableau)

- Built Tableau dashboard with UK STATS19 data using geospatial clustering and severity segmentation for risk analysis.
- Added temporal heatmaps and dynamic KPI filters to enable multidimensional analysis of accident trends.

EDUCATION

University of Wisconsin-Madison, Madison, WI

January 2024 - December 2025

- MS Industrial Engineering - Systems Engineering and Analytics
- Graduate Teaching Assistant – Manufacturing: Polymer Processing and Engineering

GPA: 3.7/4.0

August 2024 - December 2024

Kumaraguru College of Technology, Anna University, Coimbatore, India

July 2016 – April 2020

- Bachelor of Engineering - Mechatronics Engineering

GPA: 7.6/10

TECHNICAL SKILLS

Core Skills: Lean manufacturing, 5S, Kaizen, Process Optimization, Fixture and Tooling design, DFM, DFMEA, GD&T, NPI, Production Planning, DMAIC, Time and Motion studies, Takt time, Line balancing, VSM, Process Validation, RCA, FMEA, SPC, GR&R, CAPA, ERP systems, Change Control, Quality Systems, Documentation, Cross-Functional Collaboration

Software: SolidWorks, Creo, AutoCAD, Windchill, ProPlanner, SAP ERP, S4 HANA, SharePoint, Power Apps, Power Automate, Excel, Tableau, Power BI, R Shiny, MATLAB, Python, SQL, Minitab, COMSOL, LabVIEW

Certifications: Six Sigma Yellow Belt (LinkedIn), Accelerated MATLAB (LinkedIn)

LEADERSHIP EXPERIENCE

- Led cross-functional team of 17 across supply chain, sales, and service to align inventory planning with operational goals.