ASTIN ANDREWS KOLENGADEN

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PROFESSIONAL SUMMARY

Results-driven Industrial Engineering graduate student at North Carolina State University, specializing in operations optimization, systems implementation, and supply chain predictability. Proven ability to leverage data analytics, Lean Six Sigma, and project management to drive measurable efficiency gains in manufacturing and logistics environments.

EDUCATION

NORTH CAROLINA STATE UNIVERSITY ***Aug 2024 –May 2026***

MS in Industrial and Systems Engineering | Raleigh, NC, USA

*Extracurricular: Pack Motorsports **FSAE** (Business team member)*

Relevant coursework: Applied Engineering Economics, Experimental Statistics for Engineers, Design and control of Production systems, Database Applications in Industrial and Systems engineering

PSG COLLEGE OF TECHNOLOGY ***Aug 2020 – May 2024***

BTech in Mechanical Engineering| Coimbatore, India

*Extracurricular: Pegasus Racing **FSAE** (Brakes lead and driver)*

Relevant coursework: Economics for Engineers, Operations Research, Supply Chain Management, Design for Manufacture and Assembly, Finite Element Analysis, Strength of Materials, Thermodynamics

ESSENTIAL SKILLS

Process and Quality: Lean Manufacturing, Six Sigma Yellow Belt (Green Belt in progress), Root Cause Analysis, Kaizen, 5S, Value Stream Mapping, Gantt Charts, Process Improvement, Quality Assurance, Bottleneck Analysis

Data & Systems: SAP ERP, Power BI, Tableau, Minitab, R, Python, PostgreSQL, MS Excel (VBA, PivotTables), MS Access, Matlab, ANSYS Workbench, AutoCAD

Project and Operations: Project Management, Logistics Optimization, Production Scheduling, Inventory Control, Resource Allocation, Systems Implementation

Soft skills: Cross-Functional Collaboration, Analytical Thinking, Leadership, Risk Management, Strong Written & Verbal Communication

PROFESSIONAL EXPERIENCE

OPERATIONS INTERN |NEW INDIA ENGINEERING STORES ***Aug 2023 – May 2024***

Ernakulam, Kerala, India

- Engineered an Excel-based freight tracking dashboard, reducing customs clearance delays by **18%** and minimizing average lead times across 3 regional warehouses.
- Optimized inventory control using dynamic ABC classification and safety stock modeling, boosting order fulfillment rates **above 95%** and improving supply chain predictability.
- Collaborated cross-functionally with service and design teams to increase first-time fix rates by 22%, lowering warranty repair costs and improving customer satisfaction.

INDUSTRIAL ENGINEERING INTERN | CRAFTSMAN AUTOMATION LTD. ***Mar 2023 – May 2023***

Coimbatore, Tamil Nadu, India

- Boosted machining efficiency by 14% through targeted cycle time optimization using time studies and Excel-based data models.
- Led three Kaizen workshops using Value Stream Mapping in Minitab, eliminating engine block assembly bottlenecks and improving throughput by 15%.
- Developed and deployed optimized production schedules in SAP ERP, enhancing on-time delivery and capacity utilization.
- Reduced defects by **8%** through root cause analysis (RCA), leveraging Fishbone and Pareto tools to isolate high-impact process errors.

GRADUATE ASSISTANT (Housing Facilities & Business Operations- NCSU) ***May 2025 – Present***

- Audited and tracked **2,000+ facility assets** across **20 residence halls** using **Poka-Yoke methods** and Excel-based inventory systems, improving asset data integrity by **30%** and supporting **preventive maintenance scheduling** integrated with **SAP ERP**.
- Designed and optimized **room and lounge layouts** for **10,000 residents+**, applying **Lean, 5S, and flow efficiency principles** to reduce turnover and relocation setup time by **20%**, aiding logistics for high-volume campus operations.
- Standardized signage and visual communication systems across 25+ residential buildings, **enhancing ADA compliance** and reducing wayfinding issues by **40%**; contributed to annual assessment reports through advanced **Excel analytics and benchmarking**.

TECHNICAL PROJECTS

OPTIMIZATION OF SEMICONDUCTOR MANUFACTURING TIMES (Academic Case study- NCSU) ***Aug 2024 – Feb 2024***

- Applied strong systems thinking to analyze operational data from a semiconductor manufacturer, identifying cycle times and WIP levels, and isolating machine-specific inefficiencies.
- Developed and deployed simulation and statistical tools to dynamically assess and reduce system cycle times, achieving up to 15% reduction in critical processes.
- Identified bottleneck processes and optimized workflows, leading to a **10%** increase in production throughput and a reduction in lead times across the supply chain.