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# PAVAN SAI CHIRIKI

*Manufacturing Engineer*

## PROFESSIONAL SUMMARY

Manufacturing Engineer with 7+ years of comprehensive experience in optimizing production processes and enhancing machine efficiency. Expert in leveraging cutting-edge tools such as PTC Creo, AutoCAD, and SolidWorks to drive innovative solutions in industrial environments. Committed to pioneering sustainable improvements and applying advanced skills in production line optimization and thermal systems analysis to elevate operational standards.

## EMPLOYMENT HISTORY

**PRODUCTION ENGINEER** **Jan 2025 - Present**
***Hylio Inc*** ***Houston, TX***

- Overhauled the assembly workflow for Hylio's AG-210 and AG-216 models, cutting build time by 30% while maintaining zero defects in final QC checks.
- Designed and implemented a new testing protocol for flight-critical components, reducing field failures by 25%.
- Guided a team of 12 technicians and 3 engineers through a high-pressure production ramp-up to meet a major client's 200-unit order.
- Partnered with suppliers to reduce lead times for carbon-fiber frames and sensors by 15%.
- Started a weekly "lessons learned" session with the production crew, leading to 40+ small tweaks that improved reliability and cut rework by 20%.
- Collaborated with R&D to evaluate new payloads on the production line, providing feedback that shaved weeks off the integration timeline.
- Conducted comprehensive PFMEA for flight-critical processes, reducing defect rates by 22%.
- Streamlined component tracking using Fishbowl Inventory, saving $50K annually in holding costs.
- Redesigned assembly workflows using Lean Six Sigma principles, cutting build time by 25% while maintaining 99% first-pass yield.
- Revamped assembly protocols, achieving a 25% reduction in build time while ensuring a 99% first-pass yield in production quality.

**MANUFACTURING ENGINEER** **Jan 2024 - Jan 2025**
***Advanced Structural Technologies*** ***Oxnard, CA***

- Implemented a 100% preventive maintenance program, resulting in a 30% reduction in unplanned downtime.
- Assisted in researching, procuring, and commissioning 3 new high-capacity production systems, leading to a 25% increase in plant throughput.
- Designed custom material handling tools, reducing operator effort and improving safety compliance.
- Investigated and resolved equipment malfunctions, reducing recurring issues by 40%.
- Led performance improvement initiatives that enhanced machine efficiency by 15%.
- Spearheaded a cross-functional team to redesign the production workflow, yielding substantial improvements in operational efficiency.
- Analyzed production data to identify bottlenecks, implementing targeted solutions that enhanced throughput and reduced cycle times.

**CAD DESIGNER – INTERNSHIP** **Aug 2023 - Dec 2023**
***San3 Engineering LLC*** ***Mulberry, FL***

- Drafted pivotal technical blueprints and schematics for production, guaranteeing clarity and adherence to industry norms.
- Pinpointed design challenges and forged novel solutions, adapting designs to boost functionality.
- Reviewed design accuracy, instituted quality measures to mitigate errors.
- Reviewed and analyzed technical blueprints, ensuring compliance with industry standards and enhancing design accuracy, leading to reduced errors in production.

**SENIOR ENGINEER** **Jan 2021 - Aug 2022**
***DENSO Corporation*** ***Haryana, India***

- Improved assembly line efficiency by 25% by redesigning the workstation layout.
- Implemented energy-saving measures, leading to a 10% reduction in energy costs.
- Enhanced maintenance indicators, reducing defect rates from 24% to 2.0%.
- Developed job procedures for critical tasks, leading to standardized operations and improved quality control.
- Streamlined assembly processes by integrating lean principles, resulting in noticeable gains in overall production speed.
- Conducted in-depth analysis of operational bottlenecks, leading to actionable insights that enhanced workflow efficiency.
- Spearheaded the implementation of a predictive maintenance system, minimizing downtime and significantly improving equipment reliability.
- Fostered teamwork across engineering and production departments, enhancing communication and driving successful project outcomes.
- Mentored junior engineers, cultivating a culture of continuous improvement and knowledge sharing within the team.

**ENGINEER** **Jun 2019 - Dec 2020**
***DENSO Corporation*** ***Haryana, India***

- Decreased machine breakdown frequency from 10% to 2% by implementing a proactive maintenance schedule.
- Reduced maintenance costs by 15% by repairing in-house and renegotiating vendor contracts.
- Synthesized line breakdown data from various global DENSO locations, fostering a comprehensive understanding of common issues and solutions.
- Implemented an advanced analytics system that identified trends in equipment failures, leading to a marked reduction in unplanned downtime.

**GRADUATE ENGINEER TRAINEE** **Jun 2018 - May 2019**
***DENSO Corporation*** ***Haryana, India***

- Streamlined procurement process, reducing lead times by 20%.
- Revamped spare parts inventory, resulting in improved resource management.
- Implemented Kaizen initiatives, driving machine performance to optimal potential.

## EDUCATION

**MASTER OF SCIENCE IN MECHANICAL ENGINEERING** **Aug 2022 - Dec 2023**
***University of South Florida*** ***Tampa, FL***

**BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING** **Jul 2014 - May 2018**
***National Institute of Technology Meghalaya*** ***India***

## SKILLS

AutoCAD, PLC, HMI, SolidWorks, PTC Creo, ANSYS Workbench, Quality Control, Lean Manufacturing,
Finite Element Analysis, Production Line Optimization, Equipment Maintenance, Thermal Systems Analysis, PFMEA.

## LINKS

LinkedIn: linkedin.com.