Naresh Kandikanti

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View my portfolio: naresh-kandikanti.netlify.app Naresh Kandikanti

Professional Summary

Passionate about leveraging industrial engineering principles to drive efficiency, optimize processes, and enhance quality. Seeking opportunities to apply my expertise in data-driven decision-making, Lean methodologies, and technical problem-solving to contribute to innovative and impactful projects.

Experience

Graduate Research Assistant *Fairborn, OH*
Wright State University *Jan 2025 – Current*

- Contributing to the Advanced Air Mobility (AAM) project, focusing on research and analysis in the sky port/vertiport domain.
- Assisting in process optimization and efficiency improvements in Advanced Air Mobility (AAM) projects.
- Conducting data-driven research for Innovations in transportation system efficiency.
- Conducted research on Urban Air Mobility (UAM) optimization and Semi-Desirable Facility Location Problems, focusing on route optimization, facility placement, and network efficiency.
- Applied mathematical modeling approaches to solve transportation and facility location problems.

Design Engineer *Hyderabad, India*
Cyient *Jun 2021 – Aug 2022*

- Developed and authored Standard Operating Procedures (SOPs) for avionics maintenance manuals, ensuring compliance with ATA 100, ISPEC 2200, and S1000D standards.
- Collaborated with cross-functional teams to translate complex engineering processes into structured documentation for aerospace systems.
- Conducted root cause analysis (RCA) to improve the accuracy of technical manuals and reduce process inefficiencies.
- Developed and updated 2D/3D engineering drawings and CAD models to support design modifications.
- Optimized workflows in documentation management, minimizing rework and improving knowledge transfer within engineering teams.

Project Engineer Intern *Hyderabad, India*
DRDL-DRDO *Jul 2019 – Mar 2020*

- Conducted machining analysis for AL7075 using Abrasive Water Jet Machining (AWJM) to enhance material strength and efficiency.
- Optimized manufacturing parameters through Design of Experiments (DOE) and ANOVA, reducing machining defects.
- Followed lean manufacturing principles to improve production efficiency and minimize material wastage.

Project Intern *Hyderabad, India*
Electronics Corporation of India Limited *May 2019 – Jun 2019*

- Assisted in developing the mechanical model of an Obstacle Detection Robot, focusing on basic structural design and stability.
- Gained foundational experience in mechanical design and manufacturing principles through hands-on exposure.
- Developed an understanding of material selection and manufacturability considerations for mechanical components.

Education

Wright State University *Fairborn, OH*
MS in Industrial and Human Factors Engineering *Fall 2023 – Present*

- GPA: 3.9/4.0

MVSR Engineering College *Hyderabad, India Fall*
BS in Mechanical Engineering *2016 – Fall 2020*

- GPA: 3.6/4.0

Projects

Six Sigma Green Belt Project *Fall 2024*
Certified Six sigma Green Belt

- Optimized paper helicopter flight time using DMAIC methodology, improving flight duration from baseline to 3.0 seconds.
- Applied Design of Experiments (DOE) and Root Cause Analysis (RCA) to identify key variables affecting aerodynamics.
- Achieved a Cpk of 1.7, demonstrating process capability and ensuring a highly consistent design within Six Sigma thresholds.
- Implemented Statistical Process Control (SPC) to validate improvements, reducing variability and ensuring repeatable performance
- Improved process efficiency by 85%, aligning with Six Sigma objectives for defect reduction and quality control.

Route Optimization Using Excel Solver *Fall 2024*

- Reduced travel distance of university vehicles from 6.5 miles to 2 miles using the Traveling Salesman Problem (TSP) framework.
- Developed optimization models for transportation and facility location problems, utilizing MS Excel and statistical analysis to improve efficiency by 69%.

Traffic Signal Optimization Using Simio *Spring 2024*

- Developed and validated a traffic light optimization model using Simio simulation to reduce congestion at a high-traffic urban intersection.
- Designed multiple traffic light timing scenarios, evaluating the impact of green light duration and signal phasing on vehicle wait time and system throughput.
- Reduced vehicle waiting times by 42.8% by optimizing traffic signal timing and analyzed queue lengths, server utilization, and traffic flow efficiency.

Skills

Process Optimization: Lean Manufacturing, Six Sigma, Kaizen, Root Cause Analysis (RCA), Design of Experiments (DOE), Optimization methods, DMAIC, FMEA, APQP, WIP

Software: SolidWorks, AutoCAD, Minitab, Python, Power BI, Simio, MS Office

Analytical: Statistical Modeling, JMP, MS Excel,