

GOKUL MOHANDAS

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Versatile mechanical engineer offering over 8+ years of expertise in computer aided design, product development and data-driven mechanical analysis. Collaborative team leader continually focused on building relationships to produce highly effective teams, increasing productivity, and improving outcomes.

PROFESSIONAL EXPERIENCE

Mechanical Design Engineer | Powered Aire, Inc., Greenville, PA

| JUL 2023 - PRESENT

- Architected a telescoping air curtain nozzle extension (6"–24") that eliminated custom fabrication, standardized ~99% of extension orders, and reduced manufacturing lead time by 2 weeks.
- Led end-to-end design, validation, and production launch of a custom air curtain for a national QSR chain (Five Guys), coordinating requirements across engineering, manufacturing, and sales within 3 months.
- Designed and released a top air intake commercial air curtain, expanding the product portfolio for architecturally constrained installations and contributing to market segment requiring cleaner and minimal look, in the front.
- Engineered low-profile mounting systems using FEA-driven structural optimization, reducing material usage by 43% while meeting failure load and safety requirements.

Lead Product Design Engineer | Wood Designs, Inc., Monroe, NC

| APR 2020 - JUN 2023

- Oversaw the design of 2D and 3D CAD models for a portfolio of 1800 industrial wood products worth \$.5MM, collaborating with manufacturing, production, and operation teams to develop products in line with market needs.
- Developed optimized tool paths and part layouts in high volume CNC programs, reducing machining times by 20% and tool changes due to wear by 15%, generating \$2k in monthly savings for the organization.
- Managed a database with 800 products in Autodesk Vault, developing a standardized process for the retrieval of CAD files, reducing the time needed to locate and load the appropriate CAD model by 90% (from 10 minutes to 1).
- Created technical documents including information on product specifications, Bill of Materials, and in-depth assembly, installation, and repair instructions for 450 products, reducing customer calls by 83% (from 30 calls a week to 5).

Mechanical Design Engineer | RNS International, Inc., Charlotte, NC

| OCT 2018 - NOV 2019

- Acted as a design engineer developing automated test equipment worth \$60k, updating and revising 900 drawing files and CAD models in line with the organization's standards to ensure the accuracy of design details.
- Developed drawn and written documentation to aid in the production of test fixtures and implemented Lean principles to optimize the manufacturing process, reducing production related errors by 30% and improving lead times by 25%.
- Collaborated with 25 clients across 40 projects to ensure proper installation of delivered products, assisting with troubleshooting and maintenance as needed to achieve a 95% customer satisfaction rating.
- Designed test fixtures worth up to \$8k for automotive and medical customers, extracting data to ensure designs met testing needs and developing successful products that increased productivity for clients by up to 800%.

ACADEMIC PROJECTS

Design and Fabrication of a Stippling Machine | Mammoth Machine + Design

| SEP 2017 - MAY 2018

- Managed a team of 5 engineers and a budget of \$3k to design and fabricate a 5-axis CNC automated stippling machine, creating a prototype with a 70% increase in operational efficiency compared to the manual stippling process.

SKILLS

- **CAD/CAM:** SOLIDWORKS, Creo, Inventor, AutoCAD, Draftsight, Autodesk VAULT, AlphaCAM, SOLIDWORKS CAM
- **Hands-on:** 3D Printing, Bridgeport Vertical Milling, Manual Lathe, Mechanical Assembly
- **Other:** CAD Modeling, CNC Programming, GD&T, Prototyping, Product Design, FEA, Project Planning, DFMA
- **Certifications:** [CSWP](#), [CSWP-Sheet Metal](#), [CSWP-Weldments](#), [Lean Six Sigma Green Belt](#)

EDUCATION

- Master of Science in Mechanical Engineering | [UNC Charlotte](#) | GPA: 4.00 | **AUG 2016 - MAY 2018**
- Bachelor of Engineering in Mechanical Engineering | [University of Mumbai, INDIA](#) | GPA: 3.64 | **JUL 2012 - MAY 2016**