

GOKUL MOHANDAS

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PROFESSIONAL EXPERIENCE

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).
- Represented the organization at annual trade show, using product knowledge to present information on new and popular items to potential customers, leading to 5 new contracts worth an average of up to \$300k each.

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%.

Mechanical Design Engineer | String Mills and Moulds, Mumbai, INDIA

| AUG 2015 – AUG 2016

- Served as a design engineer, creating 3D CAD models for a portfolio of 15 clients and developing and implementing process optimization systems, improving the efficiency of product design by up to 66%.
- Created standardized part files for high-demand products and implemented a flowchart for the selection of pre-designed products based on customer requirements, reducing the research for and drafting of designs by up to 1 hour per project.
- Researched and presented to a management team the benefits of replacing conventional machining with 3D printing for feasible parts, leading to a 40% reduction in material and labor costs (from \$500 to \$300).

Project Trainee | Bhabha Atomic Research Center, INDIA

| JUL 2015 - MAY 2016

- Reverse engineered a \$1200 Miniature Hexapod (six-legged robot) from a full-scale model for less than 1000N load.
- Tested parts using FEA in SOLIDWORKS Simulation for maximum load capacity result of 1800N under 1mm deflection limit.
- Published thesis on hexapod design including an overview of manipulators, actuation methods and practical applications.

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, Autodesk 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 | [University of North Carolina at 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**