ARAHANTH RAJENDRA PRASAD

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SUMMARY

Highly ambitious Mechanical Engineer with demonstrated 5+ years expertise in design, manufacturing, prototyping and product development. Looking for the next role in a challenging and value-added position.

TECHNICAL EXPERTISE

Design Software:	Solid Edge, SolidWorks, AutoCAD, Siemens NX, CATIA V5/V6, SigmaNEST, HyperMesh, ProE/Creo, EZNEC, ANSYS
Tools:	Experienced operating lathe, drilling, tapping machine, laser cutting and 3D printers
Simulation Tools/Compilers:	MATLAB and Simulink, Code Composer Studio, Visual Studio, LaTeX
Certifications:	Altair HyperMesh, SolidWorks Sheet Metal, Fundamentals of Vehicle Design and Packaging, Finite Element Analysis (FEA), Additive Manufacturing, Fundamentals of GD&T ASME Y14.5M-2009

WORK EXPERIENCE

Mechanical Design Engineer: Amtech Manufacturing-Inc | Fort Worth, TX — May 2019 – Present

- Executing different phases of the product development lifecycle from conceptualization of new product ideas through sketching, 3D CAD modeling, prototyping, drafting, testing and rolling out new & improved products
- Designed and checked various sheet-metal parts, welded assemblies, hydraulic groups, wire harness, forging, tubes (SAE, ASME codes)
- Analyzed FEA results, Continuous Product Improvement (CPI) issues, New Product Introduction (NPI) issues and reviewed engineering design drawings for understanding the change reason (ECR) while adhering to standards and specifications (1E Specs)
- Incorporated appropriate GD&T callouts (ASME Y14.5), welding callouts and surface texture callouts (ASME Y14.36M) in the drawing are in line with Design for Manufacturability (DFM) and verified BOM and ECR (Engineering Change Request)
- Interfacing with the machine shop & production team to ensure final designs are in accordance with overall project goals
- Assisting in creating, organizing, categorizing and labeling the inventory system from scratch and perform regular cycle counts
- Implemented ERP system for parts & assemblies, travelers, quotes, purchasing and inventory system
- Accomplished training in fabrication techniques like welding, CNC machining, laser cutting, roll and hydraulic press brake bending
- Constructively minimized manufacturing delays up to 20% by synthesizing simple design changes and manufacturing adjustments
- Successfully attained a 30% reduction in overall manufacturing time & cost by redesigning the existing models

Mechanical Design Intern: UHV Technologies-Inc | Fort Worth, TX — Aug 2018 – Jan 2019

- Successfully designed a 3D-Printer mechanism for NASA project in SolidWorks by implementing GD&T principles
- Designed and improved jigs, fixtures, and hardware for workpiece handling and constructed manufacturing drawings, BOMs, assembly procedures for a range of medical equipment & sorters to process coin & scrap metal
- Achieved 65% reduction in time to infer and conduct tasks by establishing CNC programming (G-code) for efficient manufacturing
- Co-ordinated with global and regional teams for detailing and design review & collaborated with the R&D team to improve existing designs and implement new manufacturing techniques
- Gained hands-on experience with all aspects from design to fabrication and worked with vendors to fabricate products & resolve issues

Mechanical Engineer: R.V.C.E| Bangalore, India — Jan 2015 – Dec 2016

- Independently performed experimental and theoretical studies on materials (bond layer, a dielectric layer, sensor, and insulation) for gas turbine engine blade application
- Involved in the deposition of multilayered thin films using high vacuum deposition techniques like sputtering, electron beam deposition and thermal evaporation
- Learned adhesion properties, hardness and strength modulus of the deposited films using Nano-indentation technique
- Designed custom sheet metal enclosures for electrical machines & control panels frames using SolidWorks, Sheetmetal tools & CATIA V5
- Developed weekly progress reports, user manuals for the new machine and managed funds for the entire project

Build/Test – Intern: Aero Elvira | Salisbury, UK — May 2014 – August 2014

- Part of the team involved in building and testing a Human Powered Aircraft prototype for the Lasham Human Powered Flight Rally 2014
- Redesigned, drafted and tested 3D mechanical components using 2D orthographic views using SolidWorks
- Assisted in advanced component replacements for existing model enhancing functioning & life of products resulting in reduced cost, lower manufacturing assembly time by 15% and improved quality

PROJECTS

Design & Manufacturing (Metal 3D printing): Engine Bracket — Dec 2019

- Acquired 3D printing operation knowledge including printer setup, part designing, loading/unloading of models, material replacement & cost analysis of the project and created a comprehensive design & manufacturingreport
- Utilized SolidWorks tools to design Jet Engine bracket, performed FEA analysis, determined the validity of the design, rendered supports using the "SUNATA" & "MAGIC" and selected IN718 as a material for the SLM fabrication process

Design & Estimation of manufacturing cost: Bench Vice Spring — April 2019

- Concept generation to final product using various design techniques such as QFD, product architecture, DFM, DFA, DFMEA, APQP, introduced GD&T & carried out Safety, Reliability and Cost Analysis of the final product
- Strategically reduced overall vibration by 65% and increased shear support to increase overall strength

EDUCATION

The University of Texas at Arlington | Arlington, TX — Dec 2019
M.S. in Mechanical Engineering — GPA: 3.7

The University of Liverpool | Liverpool, UK — May 2014
B.Eng. (Hons) in Avionic Systems Engineering — GPA: 3.0