SANCHIT GULATI

Cell: (+91) 9873-XXXX-XX | Email: sanchit.gulati@hotmail.com

EDUCATION

Bachelor of Engineering in Mechanical Engineering May 2016
Anna University, INDIA. GPA: 3.50/4.0
Relevant Coursework: Heat and Mass Transfer, Fluid Dynamis, Computational Fluid Dynamics, Advanced Calculus

TECHNICAL SKILLS

CAE: Ansys Workbench, Fluent, Icepack, Discovery Live, Abaqus, Hyper-Mesh, Nastran, nTopology's Element
CAD: Fusion 360, AutoCAD, Solidworks, SpaceClaim, CATIA V5, Siemens NX, Pro-E, Creo 2.0
Programming & other tools: MATLAB, Python, MS Project (MSP), MS Office-Word, Excel, PowerPoint, Outlook
Professional Skills: DFM, DFAM, FEA, DFMEA, FMECA, CFD, GD&T ANSI-Y14.5, Six Sigma, DFSS, 5S, Kaizen, 3D printing, Rapid Prototyping, Mechatronics, Robotics, Design of Experiments, NPD, TQM, Statistical Process Control (SPC), P&ID, Reliability Analysis, Metrology, Fatigue failure, Sheet Metal, Injection Moulding

WORK EXPERIENCE

Design Engineer
Thermax, INDIA Jun 2016 – Jul 2017

- Conceptualized the design of mechanical process equipment such as Pressure vessels, Evaporators, Storage-tanks, Heat exchangers according to ASME standards and Process & Instrumentation Diagram
- Created 3D CAD designs, engineering drawing, Project plan using Solidworks, fusion360 and MSP
- Generated Design Validation Report (DVP&R), Cost analysis report, Bill of Materials for product Design reviews
- Re-engineered Vapor-Liquid-Separator (VLS) design to achieve **5% cost reduction** by saving material usage

Summer Intern, Manufacturing Engg & Planning dept
Mercedes Benz India Pvt Ltd. Jun 2015 – Jul 2015

- Performed down-time analysis of various mechanical system & manufacturing stations for Body in White (BIW)
- Assisted in internal audits, 5S implementation, Maintaining documents and files as per VW technical standards
- Designed and conceptualized fixture used for front fender to achieve **8% faster** and accurate installation

ACADEMIC EXPERIENCE

Design Lead & Team Manager, FORZA Racing. BAJA SAE INDIA Jul 2014 – May 2016

- Performed structural, dynamic and thermal analysis of chassis and powertrain components using ANSYS
- Performed engineering analysis (FMECA), Technical writing of Design Validation Plan and Design Presentation
- Engineered a unique modular mechanical design of wheel assembly to facilitate 10% faster part replacement
- Executed selection strategy for different material properties to achieve 17% weight reduction

Topology Optimization of Engine Mounting Bracket Feb 2015 – May 2016

- Optimized geometry for manufacturing using Laser powder bed fusion process with minimum support materials
- Performed topology optimization and design validation using ANSYS to achieve **70 % weight reduction**

SMED and Work Standardization Aug 2014 – Dec 2015

- Performed SMED (Single Minute Exchange of Die) analysis for coffee making procedure following DMAIC.
- Implemented Kaizen to improve changeover time by 40% of the initial process by eliminating Muda.

Lattice Design and cellular material Optimization of Structures Jun 2013 – July 2013

- Determined the optimum unit cell shape under various loading conditions using nTopology's Element software
- Designed and validated a beam using Lattice design principles to obtain 92 % reduction in material volume

Multiphase Flow simulation using Ansys Fluent Sep 2012 – Oct 2012

- Performed transient analysis for 2-phase flow of Methane & air, and studied variation in KE and PE with time
- Studied behavior of fluids of different densities in a container, on a sliding surface and in the open environment