VIPUL GUGLANI

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EDUCATION

Clemson University International Center for Automotive Research August 2018
Master of Science in Automotive Engineering

Maharaja Agrasen Institute of Technology (MAIT), Delhi June 2016
Bachelor of Technology, Specialized in Mechanical & Automation

8.6/10

INTERNSHIPS

Eleation- Element Simulation Academy **Pune, Maharashtra**
Technical and Marketing intern
April 2016

- Learned about the basic and advanced applications of HyperWorks by performing mesh optimization, structural, dynamic, inertia- relief, thermal and NVH analysis using HyperMesh and OptiStruct
- Instructed a batch of 60-100 students about the concepts of HyperWorks learned and took 4 sessions for the same
- Organized a one-day marketing campaign for Eleation in Aurangabad, Maharashtra by visiting various colleges and Universities

Nuts and Boltz Pvt. Ltd. **Delhi**
Research Associate Intern *Jan 2016 – February 2016*

- Understood about concepts of product development phases and 3D printing technologies
- Optimized various parameters involved such as InFill density, Thickness, Meshing, support density etc. for 3D printing a part
- Involved in a project of modifying a XBOX Kinect to be used as a 3D scanner and designing a rotating fixture to place the object to be scanned
- Worked on a project of self-moving table named 'Crawla' which is based Theo-Jansen mechanism. Mainly responsible for the structural analysis of various parts of the table using SolidWorks

Ashok Leyland Pvt. Ltd. **Alwar, Rajasthan**
Student Intern *Jun 2015 – Jul 2015*

- Studied different stages implemented during chassis assembly

Micron Precision Screws Pvt. Ltd. **Rohtak, Haryana**
Student Intern *Dec 2015 – Jan 2016*

- Understood various types of CNC codes (G and M codes) used for different machining processes implemented during manufacturing of various types of nuts and bolts

Lakshmi Precision Screws Pvt. Ltd. **Rohtak, Haryana**
Student Intern *Jun 2014 – Jul 2014*

- Studied different equipment and process parameters for fabrication of different sizes of nuts and bolts
- Was involved in modelling and analyzing various types of Nuts and Bolts using tools AutoCAD and Ansys
- Designed and manufactured a hexagonal headed bolt having a diameter of 10mm

ACADEMIC PROJECTS

Sensing Data Acquisition and Processing **CU-ICAR, Greenville**
Signal processing using Ultrasonic Sensor *October 2016-December 2016*

- Consists of a team of 4 people working on applying signal processing on the output signal from an Ultrasonic sensor for noise filtration
- The output of the sensor is recorded using Arduino Uno R3 kit and the signal processing will be applied on the recorded signal

Mary's Lamb - A Self-Propelling Cart **CU-ICAR, Greenville**

Responsible for Modelling and Analysis of the cart *September 2015- December 2015*

- Consists of a team of 8 people working on developing an automatic shopping cart which can be controlled by using a wearable device
- The project aims on the implementation of all the concepts of project management taught in the class

Designing a Manufacturing system for a 5- seater Hatchback **CU-ICAR, Greenville**

Responsible for validation of assembly line through plant simulation *October 2016- December 2016*

- Working in a team of 20 students to design a manufacturing system for a new automotive production plant having main focus on maximizing the Quality
- Mainly responsible for validation of assembly line design through discrete event simulation using Siemens TecnoMatix Plant Simulation 13

Baja SaeIndia 2016 **NATRIP Indore, India**

Head of Braking and FEA department *March 2015- Feb 2016*

- Responsible for Design and fabrication of an All-Terrain Vehicle
- Secured an Overall Rank of 16 out of 350 teams participated

Final year major project **MAIT, Delhi**

Responsible for designing and simulating Heat Sink apparatus *Jan 2016- June 2016*

- Worked on project titled 'Design and Numerical simulation of a Micro Channel Heat Sink'
- It consists of design and optimization of a micro channel heat sink apparatus which has to be fabricated on a 20µm*20µm heated area of a semiconductor chip using the photolithography process

Baja Student India 2016 **BIC, Noida**

Vice Captain as well as Head of the Braking and FEA department *March 2015- Jan 2016*

- Worked on designing and fabrication of a single seated All-Terrain Vehicle
- Team secured 3rd rank in Design event and an overall rank 6th out of 41 teams

Baja SaeIndia 2015 **NATRIP Indore, India**

Design, FEA and Braking department *March 2014- Feb 2015*

- Responsible for Design and fabrication of an All-Terrain Vehicle
- Secured an All India Rank (AIR) 12/300 teams in Sales Presentation

Baja Student India 2015 **NIT, Jamshedpur**

Braking department *March 2014-Jan 2015*

- Fabricated an ALL Terrain Vehicle and secured AIR- 3 in Cost Report Presentation, AIR- 7 in Design evaluation, AIR- 6 in Static and Dynamic Events

Final year minor project **MAIT, Delhi**

Optimization and Analysis and of Wheel Assembly *Aug 2015- Dec 2015*

- It consisted of designing, optimizing a customized wheel assembly using SolidWorks and Hyper Mesh and then fabricating it using CNC tools for machining

SKILL-SET

- CATIA, SolidWorks, ProE/Creo, ANSYS, Hyper works, AutoCAD, Fusion, TecnoMatix, C/C++, MATLAB, SQL, Cura

ACHIEVEMENTS AND EXTRA-CURRICULARS

- Vice-Captain, Team JATAYU, MAIT official team for BAJA Student India 2016
- Discipline coordinator at Intercollege Volleyball event organized by MAIT, 2015
- Serving as Road Safety Officer, Community Liaison group, RSO, Haryana Police, from 2015 and Student Patrol Officer, Clemson University Police Department from Sept. 2016
- Participated in Mahindra AQ event, 2014 and secured 2nd Rank in Design-o-Junk event, DCRUST India