Rohit P

CAREER OBJECTIVE:

Passionate **CAE Analyst** with **3.6 years** of experience in modelling and simulation. Looking to join a progressive organization to apply my skills in product design optimization and contribute to the organization.

SOFTWARE SKILL:

- **Pre-Processor:** Hypermesh
  Basic Knowledge of Ansa
- **SOLVER:** OPTISTRUCT.
  LS-DYNA
- **Post- Processor:** Hyperview
  Hypergraph 2D

WORK EXPERIENCE (3.6 Years):

- Worked as a CAE Analyst at **Force Motors Ltd, Pune. (2 Jan 2024 – Present)**
- Worked as a Project Engineer (CAE) in **Hansol Simutech Solutions LLP, Pune (1 Sep 2022 – 29 Dec 2023).**
- Worked as a CAE Intern in **Future Advanced Technology, Pune**. (**6 Months**).

Types of Meshing:

- 1D Meshing: Rigid Connection.
- 2D Meshing: Shell Meshing.
- 3D Meshing: Tetra and Hex Meshing.
- **Profiles Used for Meshing:**
  - OPTISTRUCT
  - LS-DYNA
  - NASTRAN
  - ABAQUS

Simulation Projects

- **NORMAL MODAL ANALYSYS OF VEHICLE:**
  - **Organization: Force Motors Limited.**
  - **Solver:** OPTISRUCT
  - **Objective:** Objective of this project is to find eigen mode and eigen frequency of model/component.
  - **Description:**
    - First, assembled all parts together by making proper connections including spot welds, arc welds, adhesives, hemming, bolting connection (RBE2).
    - Run the model & check behavior of all connection working in proper manner or not. If all the connections in proper manner, then go for the result for checking the natural frequency of components.
    - If any components natural frequency matches with engine idle frequency, then it is needed to shift that components frequency at higher or lower side.

- **FRF ANALYSYS ON STEERING SYSTEM AND SEATING SYSTEM:**
  - **Organization: Force Motors Limited.**
  - **Solver:** OPTISRUCT
  - **Objective:** Objective of this project is to find the responses in the terms of frequencies by the applying load.
  - **Description:**
    - For steering system apply force at 3'O clock, 12'O clock and center hub and record the responses at the similar location. Similarly for Seating system apply the force at center of head rest and record the response at similar location.
    - Accordingly determine the frequency and validate the results.

- **TOPOGRAPHY OPTIMIZATION OF FLOOR:**
  - **Organization: Force Motors Limited.**
  - **Solver:** OPTISRUCT
  - **Objective:** Objective of this project is to improve the frequency of floor.
  - **Description:**
    - Apply the boundary condition to the floor where floor is spotted to other components at that location apply the SPC. Prepare the proper simulation deck properly and then run it.
    - At the time of processing iterations done in the background and which will be the better one iteration given as result.

- **GAUGE OPTIMIZATION OF CCB BRACKETS:**
  - **Organization: Force Motors Limited.**
  - **Solver:** OPTISRUCT
  - **Objective:** Objective of this project is to optimize the thickness (gauge) of components and maximizing the performance.
  - **Description:**
    - Identify the components to be optimized by the modal analysis then selecting those brackets who causes the increase in frequency.
    - Prepare the proper design variables for each bracket. Prepare the proper simulation deck properly and then run it.

- **BALL DROP TEST ON PLATE USING LS-DYNA:**
  - **Organization: Hansol Simutech Solutions LLP, Pune.**
  - **Solver:** LS-DYNA
  - **Objective:** Objective of this project is to find the structural integrity of plate.
  - **Description:**
    - Assigned material, properties, and boundary conditions to the component.
    - This analysis is done to find out stresses and deformation in the plate.

MODELING PROJECTS:

- **FE Modelling of Door Panel Components:**
  - **Organization: Hansol Simutech Solutions LLP, Pune.**
  - **Components:** Door Carrier, Map Pocket, Switch Bezel, Insert, Lower trim, Upper Trim, Waist Rail, Grab Handle etc.
  - **Description:**
    - The objective of this project is to create FEM model for complete Door Panel Parts using Hypermesh according to the guidelines and quality parameters set by customer.
    - Initially studied model geometry & surface clean-up done which includes connecting free edges to have good quality middle surface as a result.
    - We have specific general cell size to maintain, to maintain but we require additional accuracy near critical parts that, if adjusted through overall cellsize.

- **FE Modelling of Instrumental Panel Components:**
  - **Organization: Hansol Simutech Solutions LLP, Pune.**
  - **Components:** Upper IP, Lower IP, Glove Box, Glove Box Cover, Ascent Bezel, Air Ducts, etc.
  - **Description:**
    - The objective of this project is to create FEM model for Instrumental Panel with connections using Hypermesh.
    - Quality parameters set by according to customer requirement.

- **FE Modelling of BIW Sheet Metal Parts:**
  - **Organization: Hansol Simutech Solutions LLP, Pune.**
  - **Components:** BIW, Structure of Seating assembly, etc.
  - **Description:**
    - The Objective of this project is to create FE model for complete sheet metal parts & BIW parts using Hypermesh according to the guidelines.
    - Initially studied model geometry & surface clean-up done which includes connecting free edges to have good quality middle surface as a result.

EDUCATION:

- **Bachelor of Engineering in Mechanical Engineering**
  Institute Name: Sinhgad Academy of Engineering, Kondhwa, Pune.
  Pass out Year: 2022 **CGPA:** 8.83

- **Diploma in Mechanical Engineering**
  Institute Name: All India Shri Shivaji Memorial Society College of Polytechnic, Pune.
  Pass out Year: 2019 **Percentage:** 60%

- **SSC**
  School Name: Shri Wagheshwar Vidyadham Mandavgaon Pharata, Shirur, Pune.
  Pass out Year: 2016 **Percentage:** 78.60%

STRENGTHS:

- Team Work.
- Leadership.
- Problem Solving.

PERSONAL DETAILS:

- Date of Birth: 06-10-1999.
- Languages Known: English, Hindi, Marathi.
- Address: Mandavgaon Pharata Tal- Shirur Dist- Pune 412211.

I hereby declare that the above-mentioned particulars are true up to the best of my knowledge and belief.

Date:
Place:

Yours Sincerely,
Rohit Anil Pharate