# **Nitin Mahadev More**

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#### **SUMMARY**

• **5+ years** of professional experience in Finite Element Analysis (**FEA/CAE**) for real world products and able to work in various aspects of FEA

- Worked for Global OEM clients in the field of Automotive, Off Highway Trucks & Mining Equipment.
- CAE experience in Linear Static Analysis, Nonlinear Analysis and Modal Analysis
- Experience in Full Vehicle FE Modeling & Assembly using Hypermesh for Crash, safety, strength & Durability Analysis.
- Possess in detail knowledge of Solid Mechanics, Structural Analysis to help the industries solve their queries on design and performance compatibility of a product
- Hands-on experience in the **CAE project** activities like preparing SOW for project, Resource planning, Project tracking, Results Reporting, Review meetings with customer & Project delivery
- Having work experience as onsite CAE analyst at General Motors Technical Center India (GMTCI Bangalore)

#### **SKILL SETS**

- FE Modeling: Good quality mesh generation for sheet metal & plastic components in Hypermesh
- Structural Analysis: Hands on experience on linear static, modal & nonlinear analysis in Abaqus & Nastran
- CAD Modelling: Basic Knowledge of generating 3D models in CATIA

# **QUALIFICATION**

Examination	Institute/University	Score %	Year	Class
M. Tech (CAD/CAM)	JNTU Hyderabad	80.00	2016	First Class With Distinction
B. E. Mechanical	Pune University	64.27	2014	First Class
DME	MSBTE Mumbai	80.70	2010	First Class With Distinction

# **TRAINING & CERTIFICATION**

- Certified Advanced Diploma in CAD-CAE (Hypermesh, ANSYS Workbench & CATIA) at IFS Academy Pune
- Abaqus Deck preparation Training for linear static, modal and nonlinear analysis at Onward Tech. Pune
- Nastran training for linear static & modal Analysis EASI-Allegis Services Pvt. Ltd. Bangalore
- Full Vehicle Assembly training at General Motors (GMTCI), Bangalore

#### **WORK EXPERIENCE**

# **Application Engineer** | Onward Technologies Limited, Pune

[June '18 – present]

- Worked for world's leading manufacturer of Construction, Mining Equipments & Off-Highway Trucks
- Understand customer requirements and apply various strategies defined by customers for developing accurate FE models as per their standard practices and physics involved in the system
- Clarify the problem definition and carry out geometric cleanup, element selection, contact definition and applying appropriate boundary conditions
- Good quality fine mesh generation in **Hypermesh** for shell and solid components
- The major working areas are meshing, connections for whole assembly, deck preparation, error debugging, submitting the run and checking model behavior after completing the run
- Interpret results in terms of part performance relative to design goals and suggest improvements
- Record results in FEA project database, write reports and give presentation as required
- Participate in design review meetings to provide appropriate design update recommendations
- Estimate the project delivery time, prepare **SOW**, distribute wok amongst team members, take care of billing hours and get approval from customer

CAE Analyst | EASI - Allegis Services Pvt. Ltd. Bangalore (Onsite Deputation- General Motors) [Oct '16 - may '18]

- Understanding functionality of different sub-systems and worked in the area of Full vehicle Model building for Crash, safety, strength & Durability Analysis
- Responsible for the geometrical clean-up by & Good Quality shell Mesh generation in HYPERMESH for different automotive subsystems like Head lamp, Instruments panel, Door Trim, Center Console, Wiper Cowl panel, Fuel lines, Garnish trims, Hood, Front fascia & Rear fascia, Chassis, Exhaust etc.
- Giving Connections, Welds, Joints, Contacts & Removal of Intersections of automotive subsystems
- Performed activities like **Project plan**, Resource planning, Project tracking & project delivery

### **CAE Engineer** | *FE-Solve Engineering Services Pvt. Ltd, Pune*

[Oct '15 – Sept '16]

- Worked as **CAE Modeler** responsible for Good Quality Mesh generation in **HYPERMESH** for Automotive plastic & sheet metal Components for global automotive component manufacturers
- Assigning the section and Material properties to the components with Quality checks like Edges, Normals,
   Feature capturing, Connectivity, Duplicates, Free 1Ds etc.

#### **TECHNICAL PROJECTS**

## **Linear Static and Modal Analysis of Exhaust System for mining truck**

Application Engineer | Onward Technologies (Client: Caterpillar Inc.) Tools use

**Tools used:** Hyperworks & Nastran

- Different brackets supporting the truck engines exhaust system have analyzed for structural integrity
- Modal analysis is carried out to find critical frequencies for critical engine orders
- Estimated project hours, prepared SOW, distributed work amongst team and targeted timely delivery

## Linear Static and Modal Analysis of Oil Filter Bracket

Application Engineer / Onward Technologies (Client: Caterpillar Inc.) Tools used: Hyperworks & Abaqus

- Performed static structural & Modal analysis for Oil filter bracket at different loading conditions
- FE modelling of oil filter bracket with solid elements, captured weld splits & weld volumes, added contacts

# **Linear Static Analysis of Fuel Tank Assembly**

**Application Engineer** / Onward Technologies (Client: Caterpillar Inc.) **Tools used:** Hyperworks & Abaqus

- Performed static structural & Modal analysis of fuel tank assembly of mining trucks at different loading conditions by considering hydrostatic pressure and splashing effect
- Studied different kinds of gussets, channels to provide more stiffness and strength at minimal cost

#### Linear Static Analysis of staircase, Handrails & filler platform of Mining Truck

**Application Engineer** / Onward Technologies (Client: Caterpillar Inc.) **Tools used:** Hyperworks & Nastran

- To evaluate structural integrity of staircase, Handrails & filler platform for for different loading conditions
- Performed G-Load & Iso-Load analysis and reported the results to customer with design recommendation

# **Picture Moment Analysis for Mining Truck**

**Application Engineer** / Onward Technologies (Client: Caterpillar Inc.) **Tools used:** Hyperworks & Nastran

- Static structural Walk-load analysis done for Mining Truck with considering max. number of people standing on staircase & platform of truck while picture moment
- Reported results as per customer acceptance criteria for Von-mises stress & max. allowable displacement

#### Development of subsystems for full vehicle program for crash analysis.

CAE Analyst | EASI -Allegis Services Pvt. Ltd. (Client: General Motors)

Tools used: Hypermesh & ANSA

- FE Modeling as per customer guidelines for Full Vehicle subsystems like Headlamp, Instruments panel, Door Trim, Center Console, Wiper Cowl, Fuel lines, Hood, Front & Rear fascia, Chassis, Exhaust etc.
- Connections, Welds, Joints, assembly & Removal of Intersections for subsystems as per Guidelines.

# LANGUAGE PROFICIENCY

English, Hindi, Marathi.