

ANANTHSHYANA M

Senior Design Engineer



Aspiring to secure a position as a CAE Automotive Crash Analyst, contributing knowledge of 7 years and foundation in CAE domain, continuously advancing skills in a high-performance engineering environment.

Profile Summary

- Knowledge in CAE Crash Analysis, focusing on FE model preparation and meshing techniques within the automotive industry.
- Progressed through diverse roles, gaining extensive knowledge in Model Preparation, Meshing Techniques, and Result Interpretation.
- Realized key achievements in the current role by preparing effective finite element models that align with project specifications, resulting in enhanced project timelines and increased client satisfaction.
- Hold extensive expertise in advanced crash model preparation methodologies, particularly in LS-DYNA, essential for executing comprehensive crashworthiness evaluations.
- Exhibit a comprehensive grasp of industry standards and best practices in CAE crash automotive domain, pursuing opportunities for professional growth and knowledge advancement in the field.
- Demonstrates exceptional analytical skills and technical expertise in finite element modeling, with a proven skills to develop and implement effective methods that enhance overall project outcomes.
- Recognized for exceptional teamwork and leadership skills, effectively mentoring junior engineers and fostering a collaborative environment that promotes knowledge sharing and continuous improvement.
- Committed to staying at the forefront of team advancements, actively participating in professional development opportunities and workshops to enhance skills in crash analysis and simulation technologies.

Core Competencies

Interpretation of Result and report preparation	Advanced Meshing Techniques
Model Preparation & Connections	Finite Element Analysis
Cross-Functional Team Collaboration	Knowledge of Crash Worthiness
Post Processing in CAE	Compliance with Industry Standards

Technical Skills

- Pre and Post Processing using ANSA/META.
- Proficient in LS-DYNA.
- Expertise in Hypermesh and Hyperview.
- Skilled in Meshworks.
- Strong foundation in Finite Element Method (FEM) and fundamental principles of Crashworthiness.
- Familiarity with ABAQUS for advanced simulation tasks

Work Experience

September to Present: Senior Design Engineer at TACO (Deputed to Adient India Pvt. Ltd.), Pune

Role:

- Spearheading the preparation of runnable finite element models for seat systems, ensuring alignment with Crash modeling specifications.
- Performed Seat Belt Anchorage test simulation for the regulation ECER 14 using LSDYNA and interpreted results for the same.
- Executed Luggage Retention for the ECER 17 using LSDYNA and evaluated the structure integrity, intrusion of the luggage by post processing using META.

- Performed dynamic simulation for seat such as FI and RI.
- Interpretation of simulation results and compiling comprehensive reports for various load cases, including LR, rear, and frontal impacts.
- Meshing Model preparation processes for comfort simulations in ABAQUS profile.
- Innovating and developing advanced meshing methodologies, striving for implementation across multiple projects to improve efficiency.
- Engaging in proactive coordination with clients to ensure timely execution of tasks and delivery of project milestones.
- Collaborating with cross-functional teams to facilitate knowledge sharing and enhance project outcomes.

Apr'2019 to Aug'2022: Research Engineer at Hyundai Motors India Engineering, Hyderabad

Role:

- Executed assembly-level and complete vehicle integration tasks as well as meshing task, ensuring seamless collaboration among various engineering teams.
- Implemented modeling guidelines for diverse assemblies, including Body-in-White (BIW), plastics, seat systems, and chassis components.
- Assisted senior engineers in meshing and model building activities, contributing to the overall success of engineering projects.
- Gained expertise in debugging and post-processing for crash simulations within the LS-DYNA environment, enhancing technical proficiency.
- Participated in cross-functional meetings to understand project requirements and help align engineering tasks with overall organizational goals.
- Engaged in continuous learning to stay updated with the latest advancements in Crash FE modeling and preparation.
- Contributed to the development of best practices in meshing for crashworthiness assessments, ensuring compliance with industry standards.

Education

- **M.Tech. (Machine Design)**, Bangalore Institute of Technology, VTU, 2018
- **B.E. (Mechanical)**, PES Institute of Technology, VTU affiliated, Belgaum, 2016

Projects

- Performed roof crush analysis to check the strength of the roof of a Hyundai SUV.
- Developed the FE model and simulated for the SBA test- ECER14. Results interpretation and delivered as per the customer requirement.
- Prepared model and performed simulation for LR -ECER 17. From the results interpretation and observation, suggested design to customer.
- Performed rear impact and frontal impact for different in house seat programs.
- Delivered complex finite element models, including meshing tasks and model preparation for various programs.