

Title: Safety and Crashworthiness CAE Engineer II

Location: Ann Arbor, MI

Type: Contract

Contact: paul@hulkegr.com

Primary Responsibilities (but not limited to)

- Perform structural crashworthiness and occupant safety analysis using LS-DYNA and MADYMO
- Execute occupant safety simulations with dummy and human body models and evaluate occupant injury performance
- Use FE analysis to guide physical tests plan; develop test matrix and correlate test results with simulation results
- Work closely with crash test engineer and support following activities
 - Type : Full vehicle, system, sled, and component level evaluations
 - Pre-test : Develop test plan/set-up, attend, and conduct test
 - Post-test : Test data analysis, teardowns/inspection, and reporting
 - Collaborate with other engineering teams to develop designs / design changes to meet Safety and Crashworthiness targets (eg. NHTSA FMVSS standards; NCAP and IIHS test requirements)
 - Collaborate with body structures and restraint team in developing optimized designs
 - Create technical reports per HATCI guidelines and present to all collaborating teams as needed
 - Travel up to 10% of the time domestically and internationally

Experience and Skills

- Strong knowledge in automotive structure, crashworthiness, and safety
- Highly skilled in hands-on CAE use, and crash safety analysis
- Strong analytical skills to make meaningful conclusions from CAE simulations as well as physical tests

- In-depth understanding of LS-Dyna explicit solver / material models / element formulation
 - Strong knowledge of Federal Motor Vehicle Safety Standard (FMVSS), NCAP, and IIHS safety evaluations
 - Experience using test data analysis tools is ideal (DIAdem, Hyperworks, Excel etc)
 - Knowledge of testing, test equipment, and processes necessary to meet vehicle requirements and its CAE representation
 - Demonstrated ability to maintain confidentiality, demonstrate integrity, and ethical behavior

Minimum Requirements:

- Bachelor's/Master's degree in Mechanical Engineering.
- 5+ years' experience in automotive industry
- Knowledge of software tools
- Demonstrated ability to work independently and with others.
- Excellent Communication Skills.
- Strong Analytical skills.
- Proficient skills in MS Office - Word, Excel, PowerPoint, Outlook
- Proficient time management and organization skills