#### Sathish Pittala

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# **Objective**

Seeking a Fulltime CAE Engineer position that utilizes my Finite Element Analysis, Modeling, and Project Management Skills.

## Summary

- Over 12 year's professional experience in CAE/FEA with Automotive and Heavy Engineering Domain
- Expertise in performing linear and non-linear static and dynamic FEA simulations
- Strong experience in using Abaqus, Nastran, LS Dyna, Optistruct, Hypermesh, and Hyperview
- Ability to work and communicate with local and global teams by generating the solutions for complex problems
- Synthesizing component, subsystem and full vehicle CAE models for structural, dynamic, durability, fatigue and crash simulation methods
- Worked with Global Engineering (CAE) teams at CATERPILLAR Inc (Peoria, IL) and General Motors (Pontiac, Warren) facilities
- Comfortable with ambiguity and providing design directions quickly with minimum inputs
- Demonstrated interpersonal, troubleshooting, presentation and execution skills
- Competent leadership, team work experience, self-management, strong presentation and communication skills
- Excellent analytical and quantitative skills, results driven and detail oriented
- Stays a breast with new technology and competitive products
- Good understanding of ISO standard testing for the bicycle industry and developing the CAE load cases for the same.

# **Work Experience**

> CAE Engineer (Representing Ian martin Ltd)

Oct 2012 to Present

**General Motors Canadian Technical Center, Oshawa, ON, Canada** 

# **Project/Program Responsibilities**

- Conducted and performed a large variety of complex simulations and analysis using computer aided engineering tools
- Used skills to engage in leading-edge automotive technology development and placing the engineering fundamentals into real-world application.
- Performed the structural analysis using CAE tools in the process of developing new vehicle structural products
- Ability to manage multiple projects with quality, meeting the time lines
- Used FEA tools to analyze components, sub-systems and vehicles to requirements, and interacted with the design, program and validation teams to produce designs to meet all requirements
- Developed alternative solutions and recommendations considering target cost, requirements, & other constraints.

- Communicated globally with engineers in a large variety of product development and product modification projects,
- Prepared technical reports of analysis results, interpretations according to the program & related regulations.
- Participated in the Global GM Closure Focus Group, and Modelling Focus Group as the CAE CTC Representative, e.g. developing analysis procedures, along with testing the new process automated tools, etc.
- Handled multi displinary projects with different subsystem's e.g. Closures, Exteriors, DEF systems, E-Bike programs and R&D composites team

## **Technical & Engineering**

- Performed analysis using LS/Dyna, Hyperworks, LSPrePost, Nastran, Optistruct, Ansa, Primer & nCode.
- Conducted & Performed Crash (e.g. Slam, Low and High speed bumper regulatory), Durability/Fatigue, Linear/Nonlinear, & Modal analyses.

# ➤ Engineer JUN 2011 – JULY 2012 CATERPILLAR ENGINEERING DESIGN CENTER INDIA INDIA

- Perform strength, residual strength, and fatigue analyses of Air system structural components using both computer modeling and analysis methods and classical calculation methods
- Review test results and correlate with analytical models. Evaluate test results that may impact
  the design or require a design improvement
- Perform work assignments with minimum supervision
- Liaison with Design Engineers to improve the life of Air system Components
- Performed Bolted Joint Analysis, Modal and Frequency Response Analysis on Engine Mounted Components

# Senior CAE Engineer General Motors Technical Center India Pvt Ltd INDIA

FEB 2009 - JUN 2011

- Supply structural Analysis support to the design and certification groups based on the provided geometry model.
- Perform Finite Element Analysis and calculations to support any new designs or changes to existing designs and interpret analysis results; select the best solution
- Plan and manage projects, review project-related analysis result to ensure its accuracy, adherence to cost and timelines.
- Maintaining the Project Documents as per ISO standards.

# Senior CAE EngineerMahindra Satyam, Hyderabad, INDIA

MAR 2008 - FEB 2009

# Senior Engineer CAEWipro Technologies, Hyderabad, INDIA

**NOV 2005 - MAR 2008** 

- Translating the actual problem into a Finite Element Analysis (FEA) model and interpreting analysis results; selecting the best solution.
- Plan and manage projects, review project-related analysis result to ensure its accuracy, adherence to cost and timelines & maintaining the project documents as per standards
- Perform linear and nonlinear static analysis on powertrain components, Interpret results and convert them to design suggestions.

### **Education**

MEng. Degree in Mechanical Engineering - Jawaharlal Nehru Technological University, India.

Graduated in Mechanical Engineering (AMIE) - Institution of Engineers (India).

**Diploma in Automobile Engineering -**Sanjay Gandhi Memorial Polytechnic, India

#### **Software Skills**

**FEA Tools** : Abaqus, Ansys, Nastran, LS-Dyna, ncode, Hypermesh, Hyperview, ANSA

**Solid Modeling /CAD**: CATIA V5, AutoCAD, Unigraphics-Nx.

PLM : Team center Engineering.

Microsoft office Tools: MS Word, Excel, and PowerPoint.

Operating Systems : Windows, UNIX

# **Professional Memberships**

• Associate Member of Institution of Engineers (India)

• Member Society of Automotive Engineers (SAE)