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Career Objective

To enhance my career in the application of FEA for complex industrial problems for upgrading my professionalism, integrity and expert quality service continuously to stay one step ahead of the past and the present.

Profile Summary

- Having **3+ years** of professional experience in aircraft structural analysis.
- Experience in FE analysis includes static and dynamic analysis
- Proficient in the use of MATLAB programming for Numerical computations.
- Expert in MSC. NASTRAN/ PATRAN and Hypermesh.
- Preparation of technical reports & presentations.

Work Experience

Presently working with **Aeronautical Development Agency, Ministry of Defence, Bangalore** as Engineer (MARCH 2017 - Till date)

Designation: Aeronautical Engineer

Department: Airframe Directorate

Projects undertaken

1. Title: "Repair stress Analysis of aircraft component"

Tools: *MSC. Nastran, MSC PATRAN, MATLAB, MS Excel*

Description: Repair stress Analysis has done for wing component.

Responsibility:

- Finite element model was created using Patran.
- The Blend repair analysis was carried out for this model.
- The Nastran (sol 101) run used for this analysis.
- The factor of safety was calculated and compared with original model.
- The result are updated to fatigue group for further analysis.

2. Title: "Static and Modal analysis of nose landing gear for typical fighter aircraft"

Tools: *MSC. NASTRAN/PATRAN/FLDS 2017, MATLAB, MS Excel*.

Description: This analysis should be carried out to find out the bending characteristics of upper and lower toggle links and subsequently the effective torsional stiffness of nose landing gear of aircraft.

Responsibility:

- Simplified finite element model of nose landing gear was created using MSC-PATRAN.
- Various boundary conditions and loads are applied in toggle links and housing.
- Linear static analysis and Normal mode analysis are performed using MSC-NASTRAN solver.
- Calculate the torsional stiffness of the toggle links
- To study the dynamic behavior of nose landing gear from the normal mode analysis results.

3. Title: "Integration of Various stores and analysis the model"

Tools: *MSC. NASTRAN/PATRAN2018, MATLAB, MS Excel*

Description: The mode shape of the model according to various stores integration.

Responsibility:

- The Various stores are like missile, pylon, various capacity of drop tank, LDP.
- Created the 1D model according to dimension of stores using PATRAN.
- Apply the mass to that model using CONM2 in patran.
- Integrate the stores to full aircraft model and checking the normal mode analysis.
- Verify the normal mode result (sol 103) GVT report.

Work Experience

Worked as Apprentice trainee in Aeronautical Development Establishment (May 2016-March 2017) in Aerodynamic division**.**

Academic Profile

B.E. - Aeronautical Engineering, from Bannari Amman Institute of Technology, Sathyamangalam**,** had secured [**CGPA-7.90**] in the year 2015.

Personal details

Father Name	: Mr S Rajendran
Gender	: Female
Date of Birth	: 06.06.1994
Languages Known	: English, Tamil, and Kannada