

# SANKALP GAUTAM

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## Objective:

To obtain opportunity and grow as an aerospace stress engineer.

## Education:

- Masters Degree to be completed in December 2018, current GPA 3.8
- Bachelor's Degree in Aeronautical Aerospace Engineering, Mathematics Minor, Wichita State University GPA 3.3

## Work Experience:

### Kratos Defense: August 2016-August 2017

- Stress Analysis: Major structural analyst for LCASD program.
- Performed central fuselage sizing and stress analysis. Defined composite layups for the same.
- Performed metallic wing pass through bulkhead sizing and stress analysis.
- Stress analysis of various bonded and bolted joints.
- Built finite element model for various bulkheads and keel beams to perform stress analysis and load calculation followed by hand analysis to validate the post processing.
- Added various fittings and parts for better load path and weight reduction.
- Stress analysis of various lug and pin and sizing for positive margin.
- Tension and shear bolt analysis for various point loaded lugs and parts.
- Performed finite element modeling and defined composite layups and material orientation in global model for fuselage and subcomponent sizing.
- Helped engineers in FEM building and PATRAN NASTRAN familiarization.
- Worked with Dr. McIntosh for flutter analysis

### QuEST Global: July 2015-June 2016

- Stress Analysis: Aftermarket Stress Analysis support for A320 Neo.
- FEA with PATRAN/NASTRAN for static, durability, and buckling analysis with scratch, nick, surface and edge damage, edge erosion, open hole, and dent for allowable damage limit (ADL) for nacelle A320 Neo.
- Fly home lightning damage analysis with linear scratch for A320 Neo nacelle structure.
- Software experience of PATRAN, NASTRAN, hypersizer, and ELAM for linear (sol. 101), non-linear (sol. 106), buckling analysis (sol. 105) with composite and metallic structures analyzing thrust reverser.
- Used Bruhn, Roark, Niu, and other standard for references.
- Building customer relation and providing continuous technical and non-technical support to UTAS Aerospace San Diego.

### Spirit Aerosystems: 737 Max Program February 2015-May 2015

- Classical hand analysis to obtain internal load following shear and moment diagram for slat track.
- Perform loads calculations, writing stress reports and incorporating hand calculations
- Sizing of the main track for certification load using Static curved beam and straight beam analysis. Also checked for web buckling with hand calculation methods.
- SCN package analysis for the slat nose skin.

### Bombardier Learjet: Lear 85 Program May 2013-January 2015

#### Full Scale Test

- Load balancing for full-scale test to envelope the load certification requirement.
- Full scale and component level static testing of Learjet 85 Business aircraft through waffle tree construction and applying loads through hydraulic cylinders during certification phase.

- Co-wrote the test plans for aft fuselage thermal test and control surfaces for Model 85 and strain gauge and damage location placement with finite element analysis.
- Review design packages for adequate structural integrity meeting company and 14CFR part 23 requirements.

**NIAR-National Institute of Aviation Research: September 2012-May 2013**

- Environmental Lab: Lead responsibility to determine the method to perform Category B Icing for aircraft components for DO 160 testing.
- Training fellow co-workers for the day-to-day activities.

**Cox Machine: August 2011-January 2012**

- Machinist, programming and producing aluminum aircraft details on a 3 axis mill.