

Curriculum vitae

Sesha Sai

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Carrier Objective:

To become a successful professional in the field of CFD and to work in an environment where I can utilize my knowledge and amplify them.

Technical Skills

- **CFD Solver:** HiFUN, ANSYS FLUENT, OpenFOAM
- **Grid Generation:** ICEM CFD, SALOME, OpenFOAM -SnappyHex, ANSYS Mesher, Star-CCM+
- **CFD Postprocessor:** Paraview, TecPlot
- **CAD Modeling:** SolidWorks
- **OS:** Linux, Windows
- **Documentation:** MS Office, Latex
- Web design

Work Experience

Present Position:

Organization : Dept. of Aerospace Engineering, Indian Institute of Science (IISc), Bangalore

Position : Project Assistant

Duration : Dec 2018 – Present

Nature of Work : CFD Process: Grid Generation, Flow Simulation and Analysis

Area of Work : Aerodynamic Analysis of Propeller Aircrafts

Project Description:

- Aerodynamics analysis of Aircraft with propellers.
- Performance analysis of the propeller.
- Steady state analysis using Actuator Disk Method and Multiple Rotating Frame of Reference method (MRF).
- Unsteady analysis using Sliding Mesh Calculation.
- Hybrid Unstructured Meshes.

Experience:

- Generating good quality Structured Meshes, Hybrid Unstructured meshes and Flow Aligned Meshes.
- Performing grid convergence study to arrive at an optimal grid size.
- Different ways of simulating propellers and rotary wings.
- Stationary and Moving Mesh Unsteady Simulations.
- Post-processing in an automated environment for Unsteady calculations.
- High fidelity turbulence flow simulations using DES by the way of interacting with research students:
 - Synthetic jet flow simulation using moving meshes.
 - Supersonic base flow near the wake of a cylindrical Aft Body analysis.

Organization: S & I Engineering Solutions Pvt. Ltd., Bangalore

Position : Intern

Duration : April 2018 – Nov 2018

Experience:

- Attended a course on “Industrial CFD”
- Efficient CFD process from pre-processing to post-processing.
- Grid quality requirements for industrial CFD applications.
- Generated Structured and Hybrid Unstructured grids for:

Aerospace Vehicles:

- Aircraft in Cruise Configuration (NASA CRM)
- Aircraft in Landing and Take-off configuration (NASA Trap Wing, DLR-F11)
- Fighter Aircraft (F-16)
- Slender body Configuration (Missiles)

Internal Flow Analysis:

- Diffuser
- Bended Duct

Automotive Vehicle:

- Ahmed body
- DrivAer Car Model

Marine:

- Navel Ship Configuration (Frigate-SFS2)
- Submarine Configuration
- CFD Automation using OpenFOAM-SnappyHex Mesher and HiFUN Solver for multi-body simulations.

Organization: Krijji Marine Logistics Pvt Ltd, Nellore

Position : Jr. Executive (Customs House Agent)

Duration : April 2016 – March 2018

- Organizing the safe, efficient and cost-effective transportation of cargo/goods.
- Documentation: Packing specifications, Liner and Transport regulations, Insurance requirements and compliance with Overseas Countries Regulations.

IT Experience:

- Dec'14 – Mar'15: Training from INFOSYS on Dot Net, RDBMS and Java technologies during Dec'14 to Mar'15 at Hyderabad.

Academic Qualifications

Bachelor of Technology

2010-2014

12th Standard

2010

10th Standard

2008

Mechanical Engineering

CGPA: Distinction (7.1/10)

Math's, Physics, Chemistry

81.10%

SSC

72%

SCSVMV University, TN, India

Narayana Junior College, A.P, India

R.R English Medium School, A.P, India

Project Work:

Academic : SCSVMV University, Kancheepuram, Tamil Nadu

Project : Final Year, B.E

Duration : Jan 2013 – May 2014

- Studied performance, emission and combustion characteristics of a 4-stroke engine with Cashew Nut Shell Oil, Camphor Oil, Turpentine and Diesel.

Personal Skills:

- Problem solving skills.
- Willingness to learn and hard worker.
- Disciplined and dedicated.
- Willing to acquire knowledge and new skills.

Personal Information:

- Name : M. Venkata Seshasai
- Father's Name : M. Venkata Seshaiyah
- Sex : Male
- DOB : 07 Aug 1993
- Marital Status : Single
- Languages Known : English, Telugu, Tamil
- Nationality : Indian

DECLARATION

- I do hereby declare that the information furnished above is true to the best of my knowledge and belief.

M.V.Seshasai