

J YADAGIRI, CFD ENGINEER

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SUMMARY

M.Tech graduate in Thermal & Fluids Engineering from Amrita Vishwa Vidyapeetham (Amritapuri Campus) with strong expertise in computational fluid dynamics (CFD), heat transfer, and fluid mechanics. Over 2 years of professional experience as a Junior Design Engineer at Ananth Technology (Hyderabad), delivering 2D/3D CAD design and execution for large-scale projects. And also skilled in ANSYS Fluent, OpenFOAM, ParaView, AutoCAD, Onshape and Staad.Pro, with proficiency in Python and machine learning for predictive modelling and data-driven engineering. Experienced in both academic and industrial CFD projects, with research interests in aerospace propulsion, cryogenics, and advanced fluid-structure interaction (FSI).

EXPERIENCE

Simulation Lab® – Scientific Research and Development Center (ISO 9001:2015 Certified)

Online Research Intern – Subsonic Aircraft (Cfd & Thermal-Fluid Systems)

Remote

Pune,

Aug 2025 – Present

- Performing aero-thermal simulations for subsonic aircraft models using ANSYS Fluent.
- Assisting in flow optimization, heat transfer analysis, and performance prediction for subsonic flight regimes.
- Collaborating with mentors and leveraging partnerships with ANSYS-USA, Dassault Systèmes-France, NVIDIA-USA.
- Documenting workflows and findings to support data-driven research publications.
- **Employee ID:** PDC4502/AGAZ2.

Prime Toolings – Aerospace & Defense R&D Facility (ISO 9001:2015 Certified, MSME Recognized)

Remote,

Bengaluru,

Aug 2025 – Present

- Supporting CAD and DFM for missile airframes, injectors, and propulsion systems.
- Performing CFD and FEA simulations for aero-thermal and structural analysis of propulsion and aerostructure components.
- Assisting in CNC machining, prototype fabrication, and assembly of aerospace-grade components.
- Gaining exposure to rotating detonation engines (RDEs), universal rocket engines, and liquid/solid propulsion systems.
- Participating in real-time testing and validation for inert/demo missile kits and propulsion components.
- Documenting workflows and preparing technical reports for R&D deliverables.

ANANTH TECHNOLOGY PRIVATE LIMITED HYDERABAD

Junior Design Engineer

Hyderabad,

Oct 2021 – Jun 2023

- Designed and developed tilt-up concrete panels in AutoCAD and Revit for 32 Texas-based buildings.
- Delivered over 2,600 prefabricated panels, ensuring compliance with design codes. optimisation

PROJECTS

- **Simulation on a missile surface** – using Ansys Fluent (Internship project - Confidential)
- **Earthquake Prediction Analysis (ML)** – Logistic Regression, KNN, Random Forest
- **External Aerodynamic Analysis of SR-72 Blackbird Aircraft** – using Ansys Fluent
- **Forex Exchange Rate Prediction (DL)** – LSTM, GRU models in Python
- **Heat Transfer Through Porous Media** – OpenFOAM-based simulation and analysis
- **Design and Analysis of Residential Buildings Using Staad.Pro** – Load analysis and optimization
- **Prestressed Concrete Design and Applications** – Analysis using Staad.Pro

EDUCATION

- **M.Tech in Thermal and Fluids Engineering**, Amrita Vishwa Vidyapeetham, Kerala
- **B.Tech in Civil Engineering**, Sree Vishweshwaraya Institute of Technology of Science, Telangana
- **Intermediate (MPC)**, TSWREIS Wanaparthy, Telangana
- **10th** – Sathya Sai Vidya Nilayam, Kollapur, Telangana

CERTIFICATIONS

- **Generative AI for Everyone**, DeepLearning.AI | 33Y4LBV30DK8
 - **Rocket Propulsion and Spacecraft Dynamics**, Kodacy | 6c3fed08bd514382
 - **Applied Computational Fluid Dynamics**, Siemens | H15RN6IQ62I0
 - **Introduction to OpenFOAM**, Udemy | UC-04d6e46e-6afb-479f-af24-49666c1ef8cc
- Feb 2025

May 2024

Sep 2024

Nov 2024

TECHNICAL SKILLS

- **CFDTools:** Gambit, OpenFOAM, FEA (ANSYS Fluent), Tecplot, ParaView.
- **CAD/CAE:** AutoCAD, Onshape, SolidWorks
- **Programming:** Python (ML/DL), MATLAB
- **Engineering:** Vehicle Dynamics, Multibody Dynamics, Thermal Systems, Fluid Mechanics
- **ML/AI:** ANN, LSTM, GRU, Logistic Regression, KNN, Random Forest
- **OS:**Linux,Windows

WORKSHOPS

- **SCADA- and PLC-based Industrial Automation**, Institution’s Innovation Council, JANATICS at Amritapuri campus
- Dec 2024

LANGUAGES

- Telugu:

English:

Malayalam:

Hindi:
- NativeProficiency

Professional Working Proficiency

Professional Working Proficiency

Limited Working Proficiency