
Professional Summary: B.Tech Mechanical Engineering graduate with hands-on experience in CAD/CAM, CNC machining, Structural and CFD simulations using ANSYS.

Work Experience

Graduate Trainee ----- **Dec 2024 - Present**

Indian Institute of Technology Madras

- Undergoing technical training in engineering practices like Lean Manufacturing , machine operations like CNC machining, EDM, water jet machining, 3D Printing and toolroom management as part of a production-oriented environment.
- Supporting project development tasks involving CAD modeling (SolidWorks), CAM programming (MasterCAM), and prototype manufacturing and assembly.

CAE Intern (Part time, remote) ----- **Jun 2025 - Present**

Simulation Lab Pvt. Ltd

- Working on research topic: Subsonic Aircraft – Feature on Wing Flap to Enhance Aerodynamic Efficiency.
- Conducted CFD simulations using ANSYS FLUENT to evaluate the effect of wing flap configurations on subsonic aircraft aerodynamic efficiency and analyzed key aerodynamic parameters such as lift force and coefficient of drag.

Skills

Technical Skills: Mechanical Design, Manufacturing, Heat Transfer, Energy Technology, CFD.

Software Skills: SolidWorks, ANSYS, MasterCAM, MATLAB, Python, CarMaker, ChatGPT, Microsoft Office.

Education

B.Tech Mechanical Engineering ----- **CGPA: 7.29**
Shiv Nadar Institute of Eminence **Aug 2020 - May 2024**

BIEAP Intermediate ----- **CGPA: 8.92**
FIITJEE Junior College **May 2018 - Jun 2020**

CBSE 10th Class ----- **Percentage: 79.8%**
Nalanda Vidya Niketan **Jun 2017 - May 2018**

Projects

Water purification for rural areas with modified double slope solar still:

- Performed heat transfer analysis of solar desalination and solved equations using MATLAB.
- Conducted experimental trials with and without ultrasound modification, improved efficiency by 10% and 2x of fresh water yield from double slope solar still.

Structural analysis of Sandwich plate:

- Conducted structural analysis of a corrugated sandwich plate under various boundary conditions using ANSYS Mechanical.
- Evaluated deflection and bending moment behavior, verifying that the corrugated core design improved bending stiffness by approximately 30% compared to a flat plate while maintaining low weight.

SAEINDIA Autonom 2021 – Autonomous Vehicle Design Competition:

- Participated in a national-level competition to design and develop an autonomous 4-wheeled, 4-seater vehicle for urban mobility in Indian traffic scenarios and our team: TEAM TURING, has ranked among Top 5 out of 34 national teams.
- Simulated accident scenarios using IPG CarMaker and programmed ADAS with python to detect and avoid collisions.

Certificates

- **Fundamentals of Automotive Systems, Indian Institute of Technology Madras.**
- **Non-conventional Energy Resources, Indian Institute of Technology Madras.**
- **Python for Everybody Specialization, University of Michigan.**
- **Ethics in Engineering Practice, Indian Institute of Technology Kharagpur**