

SATHIYANARAYANAN M

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EDUCATION

Bachelor of Mechanical Engineering , Vellore Institute of Technology, Chennai, 9.0 CGPA (untill fourth semester)	2023- 2027
Higher secondary CBSE , Kamala Niketan, Tiruchirapalli , 73%	2021- 2023

SKILLS

CAD & Simulation Tools: Solidworks (CSWA and CSWP Certified), Ansys Spaceclaim, AVEVA E3D, CAESAR II, AutoCAD, SimScale, Ansys, Carla, Matlab

Additive Manufacturing: FDM, SLA, SLS, Print Optimization, Post-Processing & Troubleshooting

Programming & Development: Python, Java, HTML, CSS, JavaScript, Github (Version Control)

Multimedia & Design: Adobe After Effects, Adobe Premiere Pro, Canva

Soft Skills: Leadership, Time Management, Team Spirit, Effective Communication, Flexibility, Problem Solving.

WORK EXPERIENCE

Design Intern ClimbMonkey	Sep 2025 – Present, Remote
<ul style="list-style-type: none">Modeled various types of climbing holds, volumes, and other bouldering equipment using CAD software, ensuring functional and aesthetic accuracy.Contributed to optimizing manufacturing methods to improve efficiency while maintaining high quality standards.	
Powertrain Engineer Team Blitz Racing	Mar 2024 – Aug 2025, Chennai, India
<ul style="list-style-type: none">Developed the skeleton CAD model of the go-kart, performed basic simulations, and assisted with electrical system integrations to support overall vehicle design.Managed documentation, competition logistics, and technical records, ensuring smooth team operations and effective knowledge transfer.	
Design Intern Bharat Heavy Electricals Limited	May 2024 – Jun 2025, Tiruchirapalli, India
<ul style="list-style-type: none">Designed and optimized piping support structures for high-pressure header systems using AutoCAD and AVEVA E3D, while performing preliminary pipe stress analysis with CAESAR II to ensure flexibility, load distribution, and adherence to industry standards.Prepared, organized, and maintained technical documentation for ongoing industrial projects, streamlining workflow and ensuring compliance with BHEL standards and best practices.	
3D Printing Engineer 3D ModelNex	Apr 2024 – May 2025, Remote
<ul style="list-style-type: none">Created complex, print-ready STL models using SolidWorks, optimizing tolerances, orientations, and support structures for FDM/SLA printing and ensuring smooth design-to-production transitions.Collaborated with senior engineers and clients to deliver accurate, manufacturable designs under tight deadlines, rapidly adapting to workflow changes and client-driven modifications.	
Additive Manufacturing Intern SEDAXIS Advanced Materials Pvt Ltd.	Jan 2025 – Apr 2025, Chennai, India
<ul style="list-style-type: none">Gained hands-on expertise in industrial 3D printing (FDM, SLA, SLS) — including calibration, material selection, and machine operation — while optimizing support structures and print settings for accuracy and minimal waste.Validated print quality using benchmark models (3D Benchy, torture tests) and troubleshot defects (warping, layer adhesion) to refine rapid prototyping workflows.	

PERSONAL PROJECTS AND PROJECTS

Oblique Wing Aircraft (OWA): A Comprehensive Review of Design and Performance, Aerodynamic Innovations and Prospects for the Future (October 2024 - Present) Link
<ul style="list-style-type: none">Explored oblique wing aircraft, dissecting their unique design, aerodynamic innovations, and evolution in aviation history.Analyzed cutting-edge performance enhancements and future applications, highlighting breakthroughs in efficiency, stability, and operational advantage.

ACHIEVEMENTS, VOLUNTEERING & EXTRACURRICULARS

- Current Program Representative**, Mechanical Department – Actively represent student interests, coordinate with faculty, and facilitate departmental initiatives.
- Technical Head**, CAD Club – Lead and mentor 100+ students, guiding juniors, managing activities, and adding technical value through workshops and projects.
- Was one of the active leads of **Diseno**, a technical team, which conducts various technical and non-technical events during **TechnoVIT25'** (VIT's Tech fest) and led the team to several awards. [Link](#)
- Participated in and won several competitions related to core mechanical engineering.
 - CIVMECHCON (CAD Modelling) – 3rd Place [Link](#)
 - DeepDrive Auto Challenge - Runner-Up [Link](#)
 - Havoltz 25' Hackathon (Mechanical Engineering Track) - Winner [Link](#)
 - Reimagine 25' (CAD Modeling) – Winner
 - Design Master CAD – Winner [Link](#)