

VINAY SHIVA GOWDA

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PROFESSIONAL SUMMAR

Aeronautical Engineering graduate with strong knowledge in aerodynamics, propulsion systems, CFD simulation, structural analysis, and aerospace materials. Completed a Research Internship at the National Institute of Vedic Sciences (NIVS), where CFD simulations and thermal analysis of propulsion systems were performed using ANSYS Fluent, and a Drone Design Internship at 21CLABS focused on UAV design and optimization. Experienced in aerospace projects involving airfoil design, finite element analysis (FEA), composite material characterization, and engineering simulations using ANSYS Fluent, XFLR5, MSC Nastran/Patran, and CATIA V5. Currently working as a Software & Automation Engineer at Dhruv Solution Technology after successfully completing a 6-month Software & Automation Internship, with hands-on experience in PLC programming, Microsoft SQL Server, React.js, .NET, and Mendix application development. Passionate about applying simulation, design, and automation technologies to solve complex aerospace and engineering challenges.

TECHNICAL SKILLS

Aeronautical & Simulation Tools : ANSYS Fluent, XFLR5, MSC Nastran/Patran, MATLA

CAD & Design Tools : CATIA V5, 3DEXPERIENCE, AutoCAD, Mendix

Programming & Web Development : HTML, CSS, React.js, MATLAB, .NET

Database Technologies : Microsoft SQL Server, SQL Queries

Industrial Automation : PLC Programming, Automation Systems

PROJECT EXPERIENCE & INTERNSHIP EXPERIENCE

Junior Software Engineer in Dhruv Solution Technology

May 2026 – Present

- Working on industrial automation and software development projects involving PLC programming, Microsoft SQL Server, web technologies, and enterprise application solutions.
- Currently serving a 6-month professional period as a Junior Software Engineer, contributing to real-time software and automation projects while enhancing technical and problem-solving capabilities.
- Developing, maintaining, and optimizing applications using HTML, CSS, React.js, and .NET technologies to support business and operational requirements.
- Designing, implementing, and executing SQL queries, stored procedures, and database operations using Microsoft SQL Server for efficient data management and reporting.
- Collaborating with cross-functional teams to analyze requirements, develop technical solutions, and improve system performance and operational efficiency.
- Working with the Mendix low-code platform to develop enterprise applications and automate business processes.

Software & Automation Training Intern in Dhruv Solution Technology

Oct 2025 – Apr 2026

- Successfully completed a 6-month Software & Automation Internship focused on software development, industrial automation, and enterprise technologies.
- Developed responsive and user-friendly web applications using HTML, CSS, and React.js as part of technical assignments and practical projects.
- Performed database design, data management, and query execution using Microsoft SQL Server to support application functionality and reporting requirements.
- Gained hands-on experience in PLC programming, industrial automation systems, and control logic development.
- Built and completed multiple technical assignment projects using .NET framework and web development technologies.
- Acquired practical exposure to system integration, automation workflows, and real-world industrial applications.
- Learned the Mendix low-code application development platform and developed an understanding of enterprise application design and business process automation.
- Worked closely with mentors and technical teams to strengthen analytical, problem-solving, teamwork, and communication skills in a professional environment.

Research Internship –Propulsion Systems at National Institute of Vedic Sciences (NIVS)		Feb 2025-May 2025
- Conducted CFD simulations of propulsion-related internal flow systems using ANSYS Fluent. - Evaluated kerosene vaporization and insulation performance under thermal loading conditions. - Performed geometry modification to improve thermal stability and flow efficiency. - Documented analysis results and proposed design improvements for performance enhancement.		
Material Characterization of Aerospace Composite Structures		2024 – 2025
- Developed and tested hybrid composite laminates for structural aerospace applications. - Conducted TGA, vibration, and impact testing to evaluate thermal stability and durability. - Improved damping ratio by 35% and impact resistance by 40%. - Correlated material performance with structural reliability considerations.		
Airfoil Design & Optimization for Low Reynolds Number Airfoil Design		2024
- Designed and optimized a high-lift airfoil using S1223 and CH10 profiles through CFD and aerodynamic analysis. - Performed flow analysis and drag reduction studies using XFLR5 and ANSYS. - Improved maximum lift coefficient (Cl max) by 16%, supporting concepts relevant to aero engine inlet and flow passage optimization.		
Structural & Modal Analysis of Aerospace Components using Finite Element Analysis		2023-2024
- Conducted FEA-based structural and modal analysis on modified aerospace structures under aerodynamic loading. - Identified critical stress and deformation regions; optimized geometry to reduce torsional and total deformation. - Developed understanding of structural integrity, vibration behavior, and durability, applicable to engine casings, mounts, and brackets.		

EDUCATION

Bachelor of Engineering – Aeronautical Engineering	CGPA: 7.13 / 10
Dayananda Sagar College of Engineering 2023 – 2025	
Diploma – Civil Engineering	Percentage: 80%
D. Banumaiah’s Polytechnic 2019 – 2022	
SSLC (10th Standard)	Percentage: 68.18%
Gnana Ganga Vidya Peeta 2019	