

SRIVATSAV JOSUYLA

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SUMMARY

Entry Level Mechanical Engineer with 2+ years of experience designing complex electro-mechanical systems. Proficient in CAD, DFMA, thermal/fluid systems, and rapid prototyping, with a track record of delivering manufacturable, production-ready hardware through cross-functional collaboration

SKILLS

Design: SolidWorks, PTC Creo, AutoCAD, REVIT, Fusion 360, ANSYS (FEA, CFD).

Manufacturing: FMEA, GD&T, DFM, Tolerance Stack-ups, Sheet Metal, Injection Molding, 3D Printing, P&ID.

Software: MATLAB, Python, MS-OFFICE

PROFESSIONAL EXPERIENCE

Kwik Equip CGE, Pearland, TX

July 2025 - Present

Mechanical Engineer

- Designed and optimized trailer components using SolidWorks and GD&T, transitioning designs into laser-cut sheet metal and CNC-machined parts to balance structural performance with manufacturability for high-volume production.
- Developed in-house test setups for pressure vessel evaluation, including compressor and plumbing layouts, structural frames, and modular fixtures to support sensor integration
- Performed Acoustic Emission (AE) testing pressure cylinders to detect micro-cracks and ensure requalification compliance, while actively pursuing Level 1 AE certification.

Circularity Fuels, Redwood City, CA

August 2024 – January 2025

Mechanical Engineering Intern

- Designed methane reactors system using SolidWorks, optimizing catalyst supports and reducing footprint by 20%.
- Prototyped corrugated catalyst structures to improve flow uniformity, achieving 20% better distribution efficiency
- Analyzed reactor fluid flow and heat transfer, reducing pressure drop by 10% and improving thermal performance and system reliability.
- Developed and reviewed P&IDs and mechanical layouts, improving manufacturability and cross-team clarity.
- Prototyped and built blowing jigs and an automated slurry-dipping jig, strengthening hands-on R&D and manufacturing prototyping expertise.

Medha Servo Drives Pvt Ltd, Hyderabad, India

September 2021 – September 2023

R & D Mechanical Design Engineer

Project 1: Hydrogen Fuel Cell DEMU

- Designed a roof-mounted sheet metal cooling system structure for a hydrogen fuel cell train, integrating a blower and heat exchanger while ensuring manufacturability, structural integrity, and durability under vibration loads
- Executed design optimization strategies, reducing cooling system weight by 12%, improving structural efficiency.
- Performed Computational Fluid dynamics (CFD) and static structural analysis (FEA) to evaluate airflow resistance and load-bearing capacity of the cooling structure under real-world operating conditions.

Project 2: Vande Bharath Express- TRAIN 18

- Designed and led end-to-end product development lifecycle of traction motor cooling air ducts, including detailed engineering drawings with GD&T, FMEA reviews, stakeholder signoffs, and DFM.
- Conducted detailed FEA and CFD modeling to evaluate structural integrity and airflow performance, enhancing cooling efficiency by 15% and ensuring optimal thermal regulation.
- Coordinated with vendors and fabrication shops to review technical drawings, resolve manufacturability issues, and ensure compliance with specifications during duct fabrication and assembly.
- Delivered 32 cooling ducts in 4 configurations, achieving functional validation and on-time handoff to manufacturing.

EDUCATION

Masters' in Mechanical Engineering, University of Florida, Gainesville, FL

May 2025

Course Work: Advanced Elasticity & Solid Mechanics, Failure of Materials in Mechanical Design, Production Engineering, Finite Element Analysis, Composite Materials, Energy Conversion, Heat Transfer.

Bachelor's in Mechanical Engineering, Osmania University, India

July 2021

RELEVANT PROJECTS

UF Institute of Food and Agricultural Sciences, Gainesville, Florida

January 2025 - July 2025

Mechanical Engineer

- Designed modular electro-mechanical growth chambers with integrated thermal, lighting, and humidity control.
- Developed custom sheet metal and 3D-printed enclosures using SolidWorks, ensuring thermal isolation and serviceability.
- Integrated multi-parameter control systems with a focus on thermal efficiency and structural stability.