

# Yashwanth Kumar Mummana

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Visakhapatnam, Andhra Pradesh, India

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## Professional Summary

Results-driven Mechanical Engineer with 1+ year of hands-on experience in industrial maintenance and CAD design. Skilled in AutoCAD, CATIA V5, ANSYS, and CNC programming. Gained hands-on exposure to preventive maintenance, HVAC systems, and pipeline operations during a Graduate Apprenticeship at GAIL India Ltd. Committed to continuous learning and process improvement.

## Technical Skills

- CAD Tools: Catia V5(Part Design, Assembly, GSD & Drafting), Auto CAD, Solidworks
- CAE Tools: ANSYS(Structural, Thermal & CFD)
- Mechanical Operations: CNC programming (G & M codes), HVAC systems, Mechanical Seals
- Tools & Platforms: SAP PM/MM, MS Office (Word, Excel, PowerPoint)
- Knowledge Areas: GD&T, P&ID diagrams, Preventive Maintenance
- Certifications: NDT ASNT Level III (LPT, MPT, UT, RT)

## Professional Experience

### CATIA V5 & ANSYS Trainer – Consultant (ATC Skill Development Project)

#### *Sadguru Services / TCS – Government of Telangana CSR Initiative*

*August 2024 – Present / Telangana, India*

- Working as a consultant trainer under the ATC Project, a CSR initiative by the Telangana Government and TCS focused on skilling ITI students.
- Conducting hands-on training in **CATIA V5**, covering Part Design, Assembly, Drafting, and Surface Modeling modules.
- Delivering sessions on **ANSYS software** for **Structural and Thermal Analysis**, including simulation setup and result interpretation.
- Assisting students in developing CAD and CAE skills relevant to industrial applications.
- Coordinating with academic teams from TCS and ITI colleges to align training delivery and performance tracking.
- Supporting the state's mission to enhance vocational education through industry-relevant digital tools.

## Procurement & Inventory Associate

### V.L. Packings – Visakhapatnam, *India*

*November 2023 – August 2024*

- Managed inventory and procurement of raw materials for plastic glass manufacturing processes.
- Monitored daily usage and stock levels of packing materials to ensure uninterrupted production flow.
- Coordinated with suppliers for material delivery and maintained records of incoming/outgoing inventory.
- Collaborated with the production team to forecast demand and minimize wastage.
- Implemented basic inventory control practices to optimize storage space and reduce overheads.
- Gained experience in small-scale manufacturing operations and logistics handling.

## Graduate Apprentice Trainee

### GAIL India Ltd., Visakhapatnam (2020–2021)

- Upgraded HVAC systems including installation and commissioning of 56TR x 2 units.
- Participated in pigging operations and inline inspection of LPG pipelines adhering to safety norms.
- Replaced mechanical seals and aligned motors and pumps.
- Installed 12" MOV gate valve, improving automation efficiency.
- Utilized SAP-PM/MM for permit and procurement workflows under supervision.
- Coordinated with technicians ensuring uninterrupted mechanical operations.

## Mechanical Intern

### Bharat Heavy Electricals Ltd., Visakhapatnam (Apr 2018 – May 2018)

- Observed manufacturing processes of heavy vessels from rolling to CNC welding.
- Gained practical knowledge of large-scale mechanical fabrication.

## Projects

### **Optimization of Machining Parameters of Boring Using Particle Swarm Optimization**

- Conducted 20 CNC boring experiments on AA2024 alloy using a FANUC-controlled ACE CNC Lathe to analyze effects of cutting speed, feed rate, and depth of cut.
- Implemented Response Surface Methodology (RSM) and Particle Swarm Optimization (PSO) for multi-objective optimization to minimize surface roughness and maximize material removal rate.
- Achieved optimal surface roughness of 5.61  $\mu\text{m}$  and MRR of 8532.56  $\text{mm}^3/\text{min}$ , with validation accuracy above 99%.

- Employed surface roughness testing equipment for precise surface quality measurements.
- Optimized machining parameters through PSO algorithm by adjusting population size, inertia weights, and learning coefficients for best convergence.

## Education

B.Tech in Mechanical Engineering – Gayatri Vidya Parishad College of Engineering(A),  
Visakhapatnam

08/2015 – 04/2019 | CGPA: 7.37/10

Intermediate (10+2), MPC – Sri Chaitanya Boys Jr. College, Vijayawada

06/2013 – 03/2015 | Percentage: 92.2%

## Certifications

- NDT ASNT Level III: LPT, MPT, UT, RT
- Green Belt in Karate

## Achievements

- 1st Position in District-level Roller Skating (Under-14 & 16)
- 3rd Place in State-level Skating Competition
- Ranked 94th in International Master Mathematics Olympiad 2012

## Extracurricular Activities

- Participated in Coastal Campaign (KEN Foundation)
- Beach Cleaning Volunteer (TREKSOME Foundation)
- Completed 5K Cancer Awareness Marathon

## Languages

- English (Fluent)
- Hindi (Fluent)
- Telugu (Native)