RAJESH KUMAR SHARMA

Mechanical Engineer

📧 rajesh.sharma@email.com | 📱 +91-9876543210 | 📍 Pune, Maharashtra, India

💼 [LinkedIn Profile](linkedin.com/in/rajesh-sharma) | 🌐 [Portfolio](rajesh-sharma-portfolio.com)

PROFESSIONAL SUMMARY

Results-driven Mechanical Engineer with 5+ years of experience in product design, analysis, and manufacturing. Expert in CAD software (SolidWorks, AutoCAD) and simulation tools (ANSYS, MATLAB) with strong fundamentals in thermodynamics, fluid mechanics, and materials science. Proven track record in delivering cost-effective engineering solutions while ensuring quality control and safety compliance.

TECHNICAL SKILLS

CAD & Design Software

- SolidWorks (Certified Professional)

- AutoCAD (2D/3D)

- CATIA V5

- Creo Parametric

Analysis & Simulation

- ANSYS (FEA/CFD)
- MATLAB/Simulink
- MSC Nastran
- COMSOL Multiphysics

Core Engineering
- Thermodynamics & Heat Transfer
- Fluid Mechanics & Hydraulics
- Materials Science & Selection
- Finite Element Analysis (FEA)
- Computational Fluid Dynamics (CFD)

Manufacturing & Production
- CNC Programming
- Additive Manufacturing/3D Printing
- Injection Molding
- Sheet Metal Design
- GD&T (Geometric Dimensioning & Tolerancing)

Project Management
- MS Project
- Agile/Scrum Methodologies
- Risk Assessment
- Budget Management
- Cross-functional Team Leadership

Standards & Compliance

- ISO 9001:2015

- ASME Standards

- Six Sigma Green Belt

- Safety Regulations (OSHA)

PROFESSIONAL EXPERIENCE

Senior Mechanical Design Engineer

TechnoMech Industries Pvt. Ltd., Pune | *June 2021 - Present*

- Led design and development of automotive components using SolidWorks, reducing production costs by 23%

- Performed FEA analysis using ANSYS to optimize designs, improving product reliability by 35%

- Managed cross-functional team of 8 engineers for new product development projects worth ₹2.5 Cr

- Implemented quality control procedures resulting in 40% reduction in manufacturing defects

- Conducted thermal and structural simulations using MATLAB for heat exchanger optimization

Mechanical Design Engineer

Precision Engineering Solutions, Mumbai | *July 2019 - May 2021*

- Designed and modeled 50+ mechanical components using AutoCAD and SolidWorks

- Performed CFD analysis for HVAC systems, improving energy efficiency by 28%

- Collaborated with manufacturing team to ensure DFM (Design for Manufacturing) principles
- Created technical documentation and drawings following ASME Y14.5 standards
- Implemented safety compliance measures reducing workplace incidents by 60%

Junior Mechanical Engineer

InnoTech Manufacturing Ltd., Bangalore | *August 2017 - June 2019*

- Assisted in 3D modeling and drafting of industrial machinery components
- Conducted material selection analysis for cost optimization
- Performed tolerance stack-up analysis and GD&T implementation
- Supported senior engineers in FEA simulations and design validation
- Participated in root cause analysis and problem-solving initiatives

---

KEY PROJECTS

Automotive Transmission System Redesign | *2023*

- Led complete redesign of gear transmission system using SolidWorks and ANSYS
- Achieved 15% weight reduction while maintaining strength requirements
- Reduced manufacturing time by 20% through design optimization

Heat Exchanger Performance Enhancement | *2022*

- Utilized MATLAB and CFD analysis to optimize heat transfer efficiency
- Improved thermal performance by 32% through innovative fin design
- Documented findings in technical report presented to senior management

Industrial Pump System Development | *2021*

- Designed centrifugal pump system for chemical processing application
- Conducted fluid dynamics analysis ensuring 95% efficiency target
- Managed project timeline and delivered 2 weeks ahead of schedule

---

EDUCATION

Master of Technology (M.Tech) in Mechanical Engineering

Indian Institute of Technology (IIT), Mumbai | *2015 - 2017*

- Specialization: Thermal and Fluids Engineering
- CGPA: 8.5/10

Bachelor of Technology (B.Tech) in Mechanical Engineering

Visvesvaraya National Institute of Technology, Nagpur | *2011 - 2015*

- CGPA: 8.2/10

CERTIFICATIONS

- **CSWE - Certified SolidWorks Expert** (2022)
- **Six Sigma Green Belt** - ASQ (2021)
- **Project Management Professional (PMP)** - In Progress

- **ANSYS Mechanical Certification** (2020)

- **AutoCAD Professional Certification** (2019)

ACHIEVEMENTS

- Recipient of "Excellence in Engineering Design" Award - TechnoMech Industries (2023)

- Published research paper on "Optimization of Heat Transfer in Compact Heat Exchangers" in International Journal of Thermal Sciences

- Led team that won first place in National CAD Design Competition (2022)

- Reduced project delivery time by 25% through implementation of efficient project management practices

---

PROFESSIONAL MEMBERSHIPS

- Member, Institution of Engineers (India)

- Member, American Society of Mechanical Engineers (ASME)

- Member, Society of Automotive Engineers (SAE India)

LANGUAGES

- English (Fluent)

- Hindi (Native)

- Marathi (Fluent)

REFERENCES

Available upon request