

SAURABH SANDEEP PETHKAR

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EDUCATION

Drexel University

Master of Science in Mechanical Engineering

Philadelphia, PA

June 2025

University of Mumbai

Bachelor of Engineering in Mechanical Engineering

Mumbai, India

July 2019

RELEVANT COURSEWORK

- Manufacturing Processes I
- Data Analysis and Machine Learning
- Medical Robotics
- Finite Element Methods I
- Foundation of Fluid Mechanics
- Non-Destructive Evaluation Method

PROFESSIONAL EXPERIENCE

DOL Electric Co. Pvt. Ltd.

Service Engineer

Mumbai, India

September 2022 - July 2023

- Mastered the overhauling and rewinding of over 1000 LV, MV, generators, and DC motors, leveraging an in-depth understanding of assembly processes to enhance operational efficiency and reliability.
- Led a team to acquire new customers and secure more jobs, resulting in a 33% increase in target achievements.
- Contributed to reverse engineering by drafting 2D AutoCAD drawings for 40+ generator parts, enhancing project precision.
- Coordinated with key suppliers to maintain quality standards for materials, contributing to a sustained 25% improvement in product quality.

DOL Electric Co. Pvt. Ltd.

Quality Engineer

Mumbai, India

November 2020 - March 2021

- Developed proficiency in using measurement tools such as micrometers, vernier calipers, bore gauges, voltmeters, and vibration meters, resulting in a 15% increase in product quality compliance.
- Oversaw 10+ daily operations and managed material assessments with a focus on safety and compliance.
- Conducted 30+ weekly inspections and tests to ensure product quality and industry standard compliance.
- Led root cause analysis initiatives that resolved recurring quality issues, improving process reliability and customer satisfaction.
- Executed 6 Internal and 2 external audits with thorough documentation and equipment calibrations, achieving ISO 9001 certification.
- Implemented 5S across 8 workstations, increasing productivity by 25%.

Rapid Manufacturing Lab - IIT Bombay

Trainee Engineer

Mumbai, India

December 2015 - April 2016

- Supported M.Tech students in hybrid manufacturing, underwater treadmill, and 3D printer project, enhancing hands-on experience.
- Honed CAD skills through collaborative project work with M.Tech students, gaining proficiency in SolidWorks and AutoCAD.
- Orchestrated event logistics, managing communications and venue arrangements, ensuring successful execution and bolstering academic and professional engagement.

ETS Tool Room - Larsen and Toubro Ltd.

Trainee Engineer

Mumbai, India

June 2014 - November 2016

- Adapted existing DOPC to individual jobs, enhancing workflow and precision in tool and die manufacturing.
- Applied Lean principles in a Value Engineering project to analyze and optimize machining operations, achieving a significant 8% reduction in operational costs.
- Analyzed 3D drawings using CREO software, improving DOPC accuracy and operational efficiency.

PROJECTS

Design and manufacturing of All-Terrain Vehicle

March 2019

- Led the designing and manufacturing of an All-Terrain Vehicle (ATV) for the Mega ATV Championship, ensuring adherence to strict material, dimension, engine, and safety guidelines.
- Employed manufacturing techniques like welding and lathe work, and used design software such as SolidWorks, Ansys, and AutoCAD for detailed modeling and simulation.

Design & Analysis of Double Wishbone Suspension System

July 2019

- Developed a detailed 3D model of the Double Wishbone suspension system, conducted simulation analyses, and prepared a presentation to highlight its advantages over the McPherson strut system.
- Utilized SolidWorks for 3D modeling and Adams software for simulation, demonstrating the suspension system's capability to manage various forces.

SKILLS

Analysis Software: Microsoft Excel, Python, ANSYS Workbench, MATLAB

CAD/CAM: AutoCAD, SolidWorks, Fusion 360, CREO, Autodesk Moldflow