

SAHIL BAWANKAR

MECHANICAL ENGINEERING STUDENT · DESIGN & MANUFACTURING INTERN

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CORE SKILLS

- AutoCAD 2D
Orthographic, sectional & isometric drafting
- Engineering Drawing
GD&T, tolerancing, assembly views
- Manufacturing Processes
Turning, milling, drilling, welding, fitting
- Measurement & Metrology
Vernier, micrometer, dial & height gauge
- Quality Inspection
Dimensional QC vs. tolerance limits
- Engineering Analysis
Thermodynamics, heat transfer, SOM

SOFTWARE & TOOLS

AutoCAD

MS Excel

MS Office

Vernier / Micrometer

Lathe / Milling

CERTIFICATIONS & TRAINING

AutoCAD (2D) — Computer-Aided Drafting

Certified workshop / training

Workshop Practice & Manufacturing Technology

Institute lab training, PCE

LANGUAGES

English Professional

Hindi Native

Marathi Native

INTERESTS

EV & battery technology ·
Automotive design · CAD modeling
· Process improvement

PROFESSIONAL SUMMARY

Mechanical Engineering undergraduate (B.Tech, 2027) who pairs solid fundamentals with real hands-on practice — from producing fully-dimensioned 2D drawings in AutoCAD to machining and inspecting parts in the workshop. Currently building a **Battery Thermal Management System**, applying heat-transfer and design principles to a live engineering problem. Seeking a **mechanical design or manufacturing internship** where I can convert classroom theory into production-ready output and learn from an experienced team.

EDUCATION

B.Tech — Mechanical Engineering

EXPECTED 2027

Priyadarshani College of Engineering, Nagpur · CGPA: _ _ / 10

Relevant coursework: Engineering Drawing & Graphics · Manufacturing Processes · Engineering Metrology · Thermodynamics · Strength of Materials · Fluid Mechanics.

KEY PROJECTS

Battery Thermal Management System (BTMS)

ONGOING

Academic capstone-style project · AutoCAD 2D, heat-transfer analysis

- Designing a cooling arrangement to keep Li-ion / EV battery packs within a **safe operating temperature band** and extend cycle life.
- Preparing **2D layout and component-fit drawings** in AutoCAD for the cooling assembly.
- Applying **heat-transfer fundamentals** to compare air vs. liquid cooling and estimate thermal loads.

2D Drafting of Machine Components

ACADEMIC

Engineering Drawing & CAD lab

- Produced dimensioned **orthographic and sectional views** of components (shaft, flange, bracket) with correct GD&T callouts.
- Verified drawings for **manufacturing feasibility** and standard tolerances before sign-off.

TECHNICAL & WORKSHOP EXPERIENCE

- **CAD & Drafting** — prepared orthographic, sectional and isometric drawings in **AutoCAD 2D** with full dimensioning, GD&T and title blocks to engineering-drawing standards.
- **Manufacturing** — carried out **turning, milling, drilling, fitting and welding** operations in the workshop; read part drawings to plan the machining sequence.
- **Metrology** — measured machined parts with **vernier caliper, micrometer, dial gauge and height gauge**; recorded readings and checked them against tolerance limits.
- **Quality Inspection** — performed **dimensional QC** on finished jobs, flagged out-of-tolerance features and logged deviations for correction.