

Bhoomika Gaur

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Objective

I am a dedicated and curious mechanical engineer with a deep passion for design, modeling, and simulation, particularly in the field of machine and product development. Eager to contribute in real-world solutions that push the boundaries of mechanical design and aspiring to build something of my own.

Internship and Projects

Summer Internship – IIT Delhi (15th July – 15th August 2025)

Conducted under the guidance of Prof. Jitendra Prasad Khatait, Faculty of Mechanical Engineering, IIT Delhi.

- Focused on Precision Machine Design with emphasis on flexure-based mechanisms.
- Successfully executed Design and CAD Modelling of a Flexure Mechanism for high-precision Operation.

AKRUTI SolidWorks Design Competition 2025

- **Project 1: Mini Oxygen Generator** – Contributing as a role for design development and research findings, focusing on efficient oxygen generation mechanisms.
- **Project 2: Energo Cycle** – Designing and analyzed a hybrid energy-storing cycle model integrating mechanical and low-power electrical systems.

E-Yantra Robotics Competition 2025 (IIT Bombay, Organized by MoE, Govt. of India)

- Serving as **Team Captain**, leading a team through task-based challenges.
- Coordinating design, coding, and implementation phases while ensuring effective teamwork and problem-solving.

Entrepreneurial Initiatives (Team Lead & Concept Originator) Under Development

Rental Marketplace App Development

2025 – Present

- **Developing a rental platform** focused on dresses and jewelry for festivals and occasions, with plans to expand into books, luxury brands, and more.
- **Building a scalable marketplace** enabling vendors and individuals to create stores and rent items, while leading the team and driving project execution.

Deployable Solar Panel System for Agriculture

2025 – Present

- Conceiving the design of a **deployable truss-based solar panel system** tailored for agricultural use.
- Developing a **multi-functional solution (4-in-1)** to:
 - Generate renewable electricity for farms.
 - Provide **shade to crops** in extreme heat.
 - Act as a **protective cover** during excessive rainfall.
 - **Harvest rainwater** for irrigation and storage.

Smart Tempered Glass Applicator

2025 – Present

- Designing a **compact automated device** to improve tempered glass application for smartphones.
- The machine will automate full process:
 - **Removes old tempered glass** safely.
 - **Cleans the screen** to ensure a dust-free surface.
 - **Put new tempered glass** with precision & eliminates air bubbles.

Education

B.Tech | National Institute of Technology Srinagar, (2023-2027)
Department of Mechanical Engineering

CGPA: 8.741 | SGPA: 9.5 (4th Sem)

CBSE | Jawahar Navodaya Vidyalaya
Kuchaman City

Class XII: 89.60% Apr '22

Class X: 85.20 Apr '20

Technical Skills

SolidWorks, AutoCAD

ANSYS, CFD

MATLAB

PYTHON and C Programming

MS Office (Word, PowerPoint)

Soft Skills

Leadership

Problem Solving

Communication

Teamwork

Event Hosting & Coordinating

Achievements

Certified in Introduction to Aerospace Flight – NPTEL

Certified in Precision Machine Design – NPTEL

Extracurricular

Member, Society of Automotive Engineers (SAE)

Industrial Visit – HPCL and MSWM Plant

Host, Best Out of Waste – Techvaganza, NIT Srinagar

Winner, NVS National Handball Meet (2019–20)

