

ANURAG G. MISHRA

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EDUCATION

Government College of Engineering, Chhatrapati Sambhajinagar (Aurangabad) Bachelor of Technology (B.Tech) in Mechanical Engineering CGPA: 8.09	2023–2027
K. J. Somaiya Jr. College of Science & Commerce, Vidyavihar, Mumbai Higher Secondary Certificate (HSC) - Higher Secondary Education 76.67%	2022
C.E.S.s. Michael High School, Kurla (W), Mumbai Secondary School Certificate (SSC) - Secondary Education 90.00%	2020

TECHNICAL & CORE SKILLS

Core Mechanical Engineering:	Forced Convection Cooling, Heat Sink Thermal Design, Fluid Flow Dynamics, Applied Mechanics, Manufacturing Processes, Quality Control (QA/QC), Engineering Drawing
CAD/CAE & Analysis Tools:	AutoCAD (2D/3D), CREO, SolidWorks, ANSYS Fluent (Computational Fluid Dynamics & Thermal Analysis)
Hardware & Mechatronics:	Microcontrollers (Arduino UNO, Raspberry Pi, ESP32), Servo Drivers, PWM Motor Controllers, Flow Sensors, Hardware Prototyping
Programming & Data Science:	Python, R, SQL, Computer Vision, Machine Learning, Exploratory Data Analysis (EDA), NumPy, Pandas, Scikit-Learn
Soft & Leadership Skills:	Event Organization, Team Management, Time Management, Technical Writing, Analytical & Logical Reasoning
Languages Known:	English (Proficient), Hindi (Proficient), Marathi (Proficient), Russian (Learning/Elementary)

KEY ENGINEERING & HARDWARE PROJECTS

Design & Forced Convection Analysis of Micro-Heat Sink

ZOHO Corporation, Nagpur | Sole Mechanical Student Selected from 3rd Year

Aug 2025–Dec 2025

- Designed an optimized cooling heat sink for concentrated industrial heat sources using CAD modeling and numerical heat transfer principles.
- Performed thermal boundary condition calculations and numerical analysis to enhance forced convection heat dissipation rates.

Automated Reynolds Apparatus

Government College of Engineering, Chhatrapati Sambhajinagar | Team Lead

2024

- Engineered a cost-effective fluid dynamics apparatus for real-time flow velocity measurement and Reynolds number determination, reducing equipment build cost to one-third of market rates.
- Integrated precision flow sensors with an Arduino micro-controller backend, executing automated fluid dynamic velocity computations and flow regime classification (Laminar/Turbulent).

Custom FPV Racing Drone & Flight Dynamics Optimization

Government College of Engineering, Chhatrapati Sambhajinagar | Team Lead

2024

- Led a team of 6 in custom component sizing, structural frame integration, soldering, and flight controller calibration for high-speed maneuverability.
- Optimized thrust-to-weight ratio and dynamic payload balance for competitive aerial robotics events.

Computer Vision Player Performance & Motion Metrics Generator

GDSC Hackathon 2025 | Data Science & Computer Vision Project

2025

- Engineered an automated video processing pipeline using Python and computer vision techniques to track multi-player movement frame-by-frame.
- Extracted physical dynamic metrics including instantaneous speed, agility, and endurance vectors rendered into real-time graphical analytics.

Arduino-Based Soil Moisture & Parameter Analyzer

Government College of Engineering, Chhatrapati Sambhajinagar | Team Lead

2023

- Developed an embedded sensor framework to probe soil volumetric water content and transmit real-time data signals to an LCD dashboard.

PRACTICAL TRAINING & PROFESSIONAL EXPERIENCE

Co-Council Secretary, Students' Council 2025-26

Government College of Engineering, Chhatrapati Sambhajnagar

September 2025–August 2026

- Appointed to manage and coordinate all major events and institutional happenings across the college.
- Oversaw the planning and operational execution of key student milestones, including the annual technical festival (Wings-2K26), cultural festival (Antarang-2K26), and the annual sports week (Lakshya-2K26).
- Handled cross-functional tasks involving operational scheduling, resource logistics, and student volunteer team discipline.
- Incorporated skills like time management, event management, leadership, discipline, and institutional mindset.

CIPET Industrial Training on Product Manufacturing & Quality Control

Central Institute of Petrochemicals Engineering & Technology (CIPET)

October 2024

- Underwent training program offered by Central Institute of Petrochemicals Engineering & Technology in "Product Manufacturing and Quality control".
- Gained hands-on knowledge about different types of manufacturing processes used in the industries.

Active Robotics Developer & Member

Yantra - The Robotics Society, Indian Institute of Technology (IIT), Madras

August 2024–Present

- Obtaining and implementing knowledge of robotics and drones to make real-life engineering projects.

Data Science & Machine Learning Intern (Project Lead)

Zaalima Development Enterprises

April 2025–July 2025

- Intern at the firm for developing various projects related to Data Science & Machine Learning.
- Served as Team Lead for projects developed during the internship, ensuring proper communication and coordination of the team with the firm.

Data Science & AI/ML Coach

C³ (C-Cube) Official Programmer's Club, GECA.

May 2025–May 2026

- Leading the Data Science wing of the Institute's official programmer's club C³ (C-Cube), guiding upcoming AI/ML enthusiasts.
- Conducted technical sessions on "How to start to be an AI/ML Expert".

CERTIFICATIONS, HONORS & ACHIEVEMENTS

- **GATE 2026 Qualified:** Secured AIR-12767 in Mechanical Engineering domain.
- **JEE Advanced 2023:** Secured Category Rank 4300 (GEN-EWS).
- **IIT Madras BS:** Completed Foundation Level Certification in Programming & Data Science.
- **CREO Workshop:** Certified in 3D CAD Modeling by Cadcambridge.
- **CIPET Certification:** Certified in Product Manufacturing & Quality Control.
- **NPTEL Certification:** "Combustion of Solid Fuels and Propellants".
- **NPTEL Certification:** "Enhancing Soft Skills and Personality Development".
- **Space Dynamics Certification:** "Rocket Propulsion and Spacecraft Dynamics" (Kodacy).
- **AgriTech Hackathon:** Finalist at K.J. Somaiya College of Engineering.
- **Technical Quiz Competitions:** 2nd Position in Quizbate (ITSA & MESA) & 2nd Runner-up in Quizotopia (MUN-GECA).