

# Aarohi Gaikwad

Second-year Biotechnology student,  
MES Abasaheb Garware College, Pune.



[Linkedin Profile](#)

[My Website](#)

Current CGPA(SEM3): 8.85

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## Research and Work Experience

- [On-Job Research Training](#) | [Agharkar Research Institute, Pune](#) | [1 Month](#)

- Hands-on experience with PCR, HPLC, GCMS, Sanger sequencing, and microscopy. The training greatly enhanced my passion for research.

- [Internship](#) | [Sheetal Laboratory, Pune](#) | [1 Month](#)

- Performed water testing, improving skills in dilutions, moles, conversions, and pH analysis.
- Developed precision and practical expertise in basic laboratory procedures.

- [Internship](#) | [Indian Institute of Science Research and Education](#) | [3 months](#)

Worked on characterization of microbes, experiment design, literature review, data analysis and microbiological techniques for the research project titled "Screening microbes for the degradation of Volatile Organic Compounds (VOC's)

## Relevant Skills

### Technical Skills

- Molecular Biology: PCR; DNA, RNA, and plasmid isolation; competent cell preparation and transformation; agarose and polyacrylamide gel electrophoresis (PAGE, SDS-PAGE).
- Microbiology: Aseptic techniques; bacterial/fungal staining; microbial isolation and identification; minimum inhibitory concentration (MIC) assay; adaptive laboratory evolution (ALE).
- Analytical Techniques: HPLC, GC-MS, LC-MS; buffer preparation; serial dilutions and unit conversions; survey-based data analysis (N = 133).
- Biochemical & Environmental Analysis: Soil active carbon estimation.
- Scientific Communication: Review article writing; research proposals; science essays and blogs.

## Workshops and Courses

- Online Workshop on Improving Research Performance using Elsevier's Scopus and Scopus AI organized by IISER Pune in collaboration with Elsevier.
- IISER Pune Gene Editing Through CRISPR-Cas9 Workshop: The workshop strengthened molecular biology basics, PAGE and I learned and performed the revolutionary CRISPR-Cas9 technique.
- Microbial Genomics Course | Biogrademy: The course enhanced my understanding of fundamental concepts, such as genomics, and gave me a strong foundation.
- Science Through Theatre Workshop | TIFR Hyderabad: The workshop gave me valuable insights into communicating science through theatre, sparking my interest in this creative approach where art and science intersect seamlessly.
- MACS- Agharkar Research Institute HPLC, LCMS, GCMS Analytical equipment workshop: Hands-on Training of High-end Analytical equipment
- MES Abasaheb Garware College Scientific Writing Course: Improved academic and research communication skills. Learned to write research papers, review articles, scientific blogs, and research proposals.
- Catalase Breaking The Bad Workshop| IISER Pune (Jan 2024): Trained in: Plant genomic DNA extraction, Polymerase Chain Reaction, Agarose Gel Electrophoresis, Measurement of Enzyme Activity.
- Emerging Viruses and Antiviral Strategies Short-term Online Course | IISc Bengaluru (CCE) | June 2-6, 2025- Participated in a course exploring mechanisms of viral emergence, pathogenesis, and current antiviral strategies, conducted by experts at the Indian Institute of Science.

## Projects:

- Rhizobium Isolation from Biofertilizers: Conducted research and analysis at the KISAAN Agricultural Convention.
- Active Carbon Estimation in Soil: Developed and tested a protocol for soil analysis.
- Both projects increased awareness among farmers from across India who attended the convention, helping them better understand and improve their soil health.
- I conducted a survey on the " Correlation of Plants with our Mental State," analyzed the data, and created a detailed report on it.
- Worked on screening microbes for Volatile Organic Compound Degradation at IISER Pune.

# Achievements, Leadership and Outreach:

- Represented MES Abasaheb Garware College and Savitribai Phule Pune University (SPPU) at the KISAAN Agricultural Convention. (2024)
- Our research projects at the KISAAN Convention provided valuable insights to farmers, helping them better understand their soil health. Contributing to this initiative was a deeply rewarding experience
- I was the only first-year bachelor's student from my college to be selected for the On Job Training Program at Agharkar Research Institute, Pune. (2024).
- All India Rank 1: Science-Based Essay Writing Competition | Khula Aasmaan, SPPU (2019).
- Volunteered for the National Service Scheme(NSS) Campus Cleaning and Poster Making Drives to promote Environmental Awareness at Abasaheb Garware College. (2024)
- Participated in a Rally for River Bank Conservation with Pune River Revival, Pune. (2023)

## Hobbies

- Sports: Mountaineering, Swimming, Badminton
- Creativity: Enjoy Classical Music, Theatre, Painting
- Personality Development: Journaling, Writing Articles, Reading
- Staying updated on cutting-edge research