

DEBOLEENA ADHIKARY

Vadodara, Gujarat

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SUMMARY

A driven and enthusiastic Biotechnology undergraduate with a proven ability to synthesize quantitative information, experienced in computational research, pathway modelling, and systems biology analysis. A fast learner with strong project management skills, demonstrated through effective teamwork and leadership in various academic and extracurricular projects. Possesses excellent communication skills and the ability to self-manage on independent tasks while thriving in collaborative settings.

SKILLS

Data Analysis & Interpretation (Excel, Statistical Tools), Laboratory & Industrial Equipment Handling, Bioinformatics Tools, PyMOL, Pathvision, ChEMBL, DeLA-Drug, NetCTL, AllerTOP, VaxiJen, ToxinPred, Computational Research

EDUCATION

• Vellore Institute of Technology (VIT), Vellore <i>Bachelor of Technology in Biotechnology</i>	Sept 2022 – Jun 2026 CGPA: 8.7
• Green Valley High School, Vadodara <i>Higher Secondary Education</i>	Jun 2020 – Jun 2022 89%
• Delhi Public School, Vadodara <i>Secondary Education</i>	Jun 2011 – Jun 2020 95%

INTERNSHIPS

Dry Lab Research Intern July 2025 – Present
Shodhaka Life Sciences Pvt. Ltd

- Analyzed mitotic gene expression by integrating and comparing pathways from Reactome, KEGG, ConsensusDB, and PathDIP to compile a comprehensive union gene list.
- Contributed to constructing an enhanced pathway model of mitosis for a more complete representation of gene interactions and functional annotations.

Summer Research Intern May 2025 – July 2025
CSIR-CFTRI, Mysuru

- Conducted integrative profiling of aroma and taste in black tea (*Camellia sinensis*) using Electronic Nose (E-nose) and Electronic Tongue (E-tongue) technologies.
- Developed skills in instrumental sensory evaluation, data interpretation, and quality assessment techniques for food research applications.

Summer QA/QC Intern May 2024 – June 2024
Lupin Manufacturing Solutions Limited, Vadodara

- Gained practical experience in an industrial setting, working in the microbiology lab, quality control, and quality assurance departments.
- Participated in plant visits and became familiar with a wide range of instruments and equipment used in the manufacturing process.

PROJECTS

Identification of hub genes in *Pseudomonas aeruginosa* clinical isolated July 2025 – Present

- Processed raw RNA sequencing (RNA-Seq) data from NCBI's Sequence Read Archive (SRA), utilizing the European Galaxy server to compile FASTQ files for analysis.
- Executed a quality control pipeline by aligning sequences to the *Pseudomonas aeruginosa* PAO1 reference genome, filtering samples based on key metrics including GC content, adapter contamination, and alignment percentages to ensure data integrity.

CERTIFICATIONS

Cancer Genomics Certification Program BioGrademy

Completed a course on cancer genomics, covering molecular pathways, diagnosis, and treatment applications.

EXTRA-CURRICULAR ACTIVITIES & EVENTS

- **BIOSUMMIT '24**: Organized a summit with food industry experts on production, sustainability, and innovative solutions.
- **ALCHEMIX**: Finalist in a 2-day computational drug design hackathon using bioinformatics and machine learning.
- **ELUCID 2.0**: Conducted BRSI's flagship hackathon on prototype building using Fusion 360 & Business Model Canvas.
- **VAXHACK**: Secured **first place** and an internship in a team-based vaccine development coding competition.
- **BIDFEST**: Finalist in the Bio-Inspired Design Fest for a biodesign to reduce fertilizer pollution.