

Tarulata Priya

📞 +91 70705 24108 | ✉ Email | 🌐 Portfolio | 🔗 LinkedIn | 🐙 GitHub

SUMMARY

Motivated undergraduate with a strong foundation in programming and software development. Proficient in C++, Python, JavaScript, TypeScript, and R, with hands-on experience in full-stack development using React, Node.js, MongoDB, and PostgreSQL. Interested in Artificial Intelligence, Machine Learning, and Bioinformatics, with experience in dataset analysis, molecular docking, and developing AI/ML projects to explore real-world applications. Enjoy transforming ideas into clean, scalable solutions and applying computational approaches to solve biological and healthcare-related problems. A quick learner with strong analytical and problem-solving skills, committed to continuous learning and innovation.

EDUCATION

2024 – 2028	B.Tech in Biotechnology , NMAM Institute of Technology, Nitte	CGPA: 8.5/10
2023	Class XII (CBSE Board)	84%
2021	Class X (CBSE Board)	84%

INTERNSHIPS

Jawaharlal Nehru University (JNU)	June 2026 – Present
<i>Research Intern – Bioinformatics & Machine Learning (Offline)</i>	

- Working on the project “**Metabolomic Profiling and Machine Learning-Based Identification of Biomarkers in Inflammatory Bowel Disease.**”
- Performed data preprocessing, curation and exploratory analysis of metabolomics datasets.
- Classified patient cohorts and prepared datasets for machine learning workflows.
- Developed and evaluated machine learning models using **R** for disease classification and biomarker identification.
- Contributed to model optimization, validation, and interpretation to improve predictive performance.

AVSens Pvt. Ltd.	June 2026 – Present
<i>AI/ML Intern – Autonomous Driving (Online)</i>	

- Contributing to autonomous driving research by developing perception models using Computer Vision and Deep Learning techniques.
- Working with **camera, LiDAR and radar** sensor data for multimodal perception tasks.
- Training and fine-tuning **YOLO** models for object detection and performance optimization.
- Working extensively with the **nuScenes** dataset for data preparation, annotation and model evaluation.

Indian Institute of Technology Kharagpur	June 2025 – July 2025
<i>Bioinformatics and Advancements in Artificial Intelligence (Online)</i>	

- Developed a Diabetes Prediction Model using Python and Machine Learning techniques.
- Performed healthcare data preprocessing including feature scaling and dataset preparation for model training.
- Used Python libraries including **Pandas, NumPy and Matplotlib** for data preprocessing, analysis and visualization.

PROJECTS

Campus Leaf Scan	Python — Machine Learning — Deep Learning — Computer Vision
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- Developed an AI-powered leaf identification system capable of recognizing leaves from trees, shrubs and other plants using image-based classification.
- Designed the application to provide detailed botanical information including scientific name, taxonomy, and family.
- Implemented image preprocessing, feature extraction and classification techniques to enhance model performance.

Diabetes Prediction Project	Python — Pandas — Scikit-learn — Matplotlib
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- Developed a machine learning model using Python, Pandas, Scikit-learn and Matplotlib to predict diabetes outcomes.
- Performed data preprocessing, feature scaling, model training, evaluation and visualization of classification results.

Pathogen Information Website	HTML — CSS — JavaScript
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- Designed and developed an educational website presenting structured biological information about pathogens.
- Integrated biotechnology knowledge with web development to build an informative and user-friendly platform.

Portfolio Website	React.js — HTML — CSS — JavaScript
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- Developed a responsive personal portfolio website to showcase projects, technical skills and academic background.
- Built using React.js with a modern and interactive user interface.

Spotify Clone	HTML — CSS — JavaScript
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- Built a responsive Spotify Clone featuring playlist functionality and interactive music controls.

SKILLS

Programming Languages:	C++, Python, JavaScript, TypeScript, R, SQL
Web Technologies:	HTML5, CSS3, React.js, Node.js
Databases:	MongoDB, PostgreSQL
AI/ML & Data Science:	Machine Learning, Deep Learning, YOLO, Computer Vision, Data Analysis, NumPy, Pandas, Scikit-learn
Bioinformatics:	Molecular Docking, Metabolomics Data Analysis, Dataset Analysis
Tools & Platforms:	Git, GitHub, VS Code, Jupyter Notebook, CVAT

ACHIEVEMENTS

- **Track Winner – Blockchain Technology** – Alva's Institute of Engineering & Technology
- **Third Prize – BioQuest** – NMAM Institute of Technology

CERTIFICATIONS

- Full Stack Web Development (Udemy)
- Biopython for Bioinformatics (Udemy)
- Bioinformatics and Artificial Intelligence in Healthcare (IIT Kharagpur)