

Diya Goswami

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SKILLS

- **Programming Languages** : Java, C++, Python
- **Libraries and Frameworks** : TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Keras, Matplotlib
- **Tools** : Git, GitHub, Jupyter, Google Colab
- **Other Skills** : Data Structures, Problem Solving, Machine Learning, Deep Learning, Generative AI

EDUCATION

VIT Bhopal University B. Tech Computing Science and Engineering with specialization in Health Informatics 9.04 CGPA	2026
Auxilium Girls' School Higher Secondary Physics, Chemistry, Mathematics, Biology, English and Physical Education 95.2 Percentage	2022
Auxilium Girls' School High School Science, Mathematics, Social Science, Hindi, English and Information technology 96.2 Percentage	2020

PROJECTS

AI-Driven Skin Type Analysis for Personalized Dermatological Care

- DermMuse is an advanced skin type detection model that utilizes machine learning algorithms to accurately classify skin types based on various parameters such as oily, acne, dry and normal.
- Tech stack used- Python, Scikit-learn, Pandas.

Presented and Published in ICDCC 2024, *Beatwiser: Your Own Pulse Guardian*

- Co-authored a research paper analyzing multiple ML algorithms for heart disease detection.
- Performed data preprocessing, feature scaling, synthetic data generation, and visualization.
- Presented results at International Conference on Distributed Computing and Communication (ICDCC 2024) and published in the conference proceedings. Tech stack used- Python, Scikit-learn, XGBoost, Matplotlib

AI-Augmented Cardiac Risk Prediction using Synthetic Data Generation Techniques

- Built a synthetic data generation pipeline using CTGAN, VAE, and Table Diffusion to augment imbalanced heart disease datasets.
 - Trained and evaluated multiple ML models including SVM, XGBoost, CNN, and an ensemble model to improve diagnostic accuracy.
- Technology stack used- Python, CTGAN, VAE, Table Diffusion, Scikit-learn, XGBoost, CNN

Sustainable Crop Health Monitoring using AI and MobileNetV2

- Developed a deep learning model using MobileNetV2 for classifying plant diseases from leaf images with 95% validation accuracy.
- Pre-processed the PlantVillage dataset and evaluated model performance using confusion matrices and classification metrics.

EXTRA CURRICULAR

- **Smart India Hackathon 2024 Finalist**
Worked on the project of Waterless Spittoon Stations and reached the finals of the internal round of SIH.
- **Health Hackathon JHU & VITB Finalist**
Organised jointly by John Hopkins University and VIT Bhopal. Presented a project on a geographical location sensitive hospital locator and first aid system.
- **Core Member, Eureka Club, VIT Bhopal**
Explored diverse research topics and real-world datasets as part of the Research and Development team.
- **Open Source Contributor, GitHub**
Contributed to machine learning and data science projects by implementing models, improving code efficiency, and documenting workflows.
- **Data Structures & Problem Solving**
Under the topic of Data Structures and Problem Solving, I have solved over 400 problems across platforms such as LeetCode and GeeksforGeeks. These problems span core topics like arrays, strings, trees, graphs, dynamic programming, and advanced data structures. This consistent practice has significantly strengthened my algorithmic thinking, enhanced my problem-solving speed, and improved my overall coding proficiency.