# Amol Tripathi

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# **EDUCATION**

## VIT Bhopal University, India

B.Tech in Computer Science

June 2022 – June 2026 CGPA: 8.34/10

### TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript

Machine Learning: Supervised Unsupervised Learning, Deep Learning, Neural Networks, SVM, NLP

Libraries: NumPy, Pandas, PyTorch, OpenCV, Matplotlib, Seaborn

Web: HTML5, CSS, JavaScript, PHP, Express, Node.js, MySQL, MongoDB, Bootstrap, APIs, Postman

Tools: Jupyter, Git, VS Code, MongoDB Compass, MetaMask Soft Skills: Team Leadership, Communication, Project Management

#### WORK EXPERIENCE

## Project Group Lead, VIT Bhopal

Sep 2023 - Feb 2025

- Led a team of 10 in developing an ML model that reduced misclassification by 15%, optimized training time by 30%, and improved data processing speed by 40% using parallel computing techniques.
- Developed and deployed a MERN stack-based web application for seamless data visualization and user interaction, improving accessibility and real-time project monitoring.

## **PROJECTS**

## Foodie Express (GitHub Repo)

Technologies: PHP, MySQL, HTML, CSS

Jan 2025 - Feb 2025

- Developed a hotel food ordering system with database integration and responsive UI, streamlining order tracking for admins and enhancing the guest dining experience.
- Applied under-sampling and ensemble techniques to handle class imbalance, resulting in a 15% improvement in system performance.

## Student Information System (C++) (GitHub Repo)

May 2023 - June 2023

Technologies: C++, Object-Oriented Programming (OOP), File Handling

- Developed a console-based student management system in C++ to handle registration, authentication, and record management using modular class-based design.
- Implemented file handling for persistent data storage and integrated user authentication with role-based access.

# Breast Cancer Detection Using SVM

Jan 2024

 ${\bf Technologies:} \ {\bf Scikit\text{-}learn}, \ {\bf Grid} \ {\bf Search}, \ {\bf Normalization}$ 

- Achieved 97% accuracy using SVM with preprocessing and feature scaling on the Wisconsin dataset.
- Boosted F1-score with grid search and cross-validation; reduced processing time by 25%.

# **ACTIVITIES**

## Club Participation, VIT Bhopal

- Attended various technical and non-technical club activities on campus.
- Earned certificates of participation in workshops, coding events, and speaker sessions.

## **Hackathon Enthusiast**

- Participated in multiple college and national-level hackathons.
- Collaborated with team members to design and prototype solutions under time constraints.