

# ABHISHEK KUMAR

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## SKILLS

- C++, Python, MySQL, Data Structures, Machine learning

## EDUCATION

- **Vellore Institute of Technology, Bhopal** (July 2021- June 2025)  
B. Tech in CSE with Specialization in AI and ML  
CGPA: 8.17
- **XII (CBSE)** (May 2020)  
**Vidya Sanskar School**  
Percentage: 78.6%
- **X (CBSE)** (May 2018)  
**ST. Karen's High School**  
Percentage: 79.2%

## ACADEMIC PROJECTS

- **Diet and Exercise recommendation system** | (July 2024 - August 2024)
  - Designed a personalized diet and exercise recommendation system using machine learning, achieving a 93% recommendation accuracy.
  - Employed Collaborative Filtering and K-nearest neighbors algorithms to analyze over 10,000 user profiles and generate personalized recommendations.
  - Designed and deployed the system using Python, Flask, TensorFlow, and Scikit-learn, ensuring scalability and real-time recommendations.
- **Credit Card Fraud Detection** | (December 2024 - January 2025)
  - Developed a fraud detection system on an imbalanced dataset with 284,807 transactions, identifying only 492 fraud cases (0.172%).
  - Applied Principal Component Analysis (PCA) to reduce the feature set from 50 to 15, improving model training time by 60% while sustaining 95% of the original model accuracy.
  - Implemented Logistic Regression and Random Forest, optimizing for precision and recall.
  - Utilized Python, Scikit-learn, Pandas, NumPy, Matplotlib, and Seaborn for data preprocessing, feature engineering, and visualization.
- **Fake News Detection** | (February 2025 - March 2025)
  - Developed a machine learning model to classify news articles as Fake or Real using Natural Language Processing (NLP).
  - Processed 50,000+ news articles, applying TF-IDF vectorization and training models like Logistic Regression, achieving 92% accuracy.
  - Enhanced NLP model performance by refining data preprocessing techniques, reducing processing time by 15%, and enabling faster analysis of news articles during critical events.
  - Evaluated model effectiveness using precision, recall, and F1-score, ensuring robust fake news detection.

## CERTIFICATIONS

- IBM Machine Learning (February 2025)

## ACHIEVEMENTS

- Runner-up of the Kabaddi Tournament 2022
- Participated in the Techo workshop AI series at IIT Patna 2023

## POSITION OF RESPONSIBILITY

- Core Member at AAHVAAN 2023 Sports Fest