

# Rakshita Makkar

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## EDUCATION

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**VIT Bhopal University**

BTech

Computer Science Engineering

Cumulative GPA: 8.58/10

**12<sup>th</sup> Standard**

**Loreto Convent School**

CBSE Percentage: 82/100

**10<sup>th</sup> Standard**

**Loreto Convent School**

CBSE Percentage: 88.4/100

Bhopal, Madhya Pradesh  
Expected May 2026

Delhi Cantt, New Delhi  
Jul 2022

Delhi Cantt, New Delhi  
Mar 2020

## PROJECTS

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**AQI Prediction System**

Mar 2025 – Jun 2025

Role: Lead Developer | Technologies: Python, Machine Learning, Deep Learning

Designed and implemented a Deep Learning (DL) system to predict AQI, achieving 80% accuracy with models such as Transformer, Dense Neural Networks (DenseNN), Gated Recurrent Unit (GRU), and Long Short-Term Memory (LSTM).

**Cascade - A GenAI Study Companion Software**

Jan 2024 – Apr 2024

Role: Lead Developer | Technologies: Python, PyQt, LLM, MySQL

Developed a personalized study companion software that analyzes individual learning patterns, preferences, and exam schedules to generate customized study plans that increases efficiency by 50%. Key features include a Timer, To-do list, Notes, Music Player, Flashcards, and a GenAI-powered Chatbot.

**Eradiket – One Stop Platform for Data Management**

Apr 2023 – Sep 2023

Role: Developer | Technologies: Python, AES, ChaCha 2.0, Cybersecurity

Created a comprehensive data management software with system check capabilities, permanent deletion features, and encryption and decryption functionalities. The platform offers two prominent encryption methods: AES and ChaCha 2.0, with options for key sizes of 128, 196, or 256 bits.

## EXPERIENCE

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**ML Research Intern at Manav Rachna International Institute of Research and Studies**

Oct 2024 - Dec 2024

Conducted research on Parkinson's disease, developing a speech analysis project using ML models with features like Mel-frequency Cepstral Coefficients, chroma, spectral centroid, and Harmonics-to-Noise Ratio with up to 90% accuracy.

## CONFERENCE PRESENTATIONS

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**Global AI Summit 2025 – International Conference on Artificial Intelligence and Emerging Technology 2.0, Bennett University, India, Presenter (technically co-sponsored by IEEE UP Section)**

Nov 2025

“Machine Learning-Based Acoustic Feature Analysis for Early Detection of Parkinson's Disease”

## EXTRACURRICULAR

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**CyberWarriors club | Design Team Lead**

Oct 2024 – Aug 2025

Lead a design team of six members within the CyberWarriors club, delivering eight impactful design projects, and completing 100% of all design requests by project deadlines.

**Dance club | Core Member**

Jan 2023 – Aug 2025

Coordinated and executed three club events including workshops and performances resulting in increased member engagement and participation.

## ADDITIONAL

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**Technical Skills:** Microsoft Office, Excel, Canva, Intermediate in C++, Proficient in Python, Java, HTML, CSS, MySQL

**Languages:** Fluent in Hindi, English

**Certifications & Training:** Cloud Computing - NPTEL | Issued: April 2024

The Bits and Bytes of Computer Networking - Google | Issued: December 2023

Supervised Machine Learning: Regression and Classification – Stanford University and DeepLearning.AI | Issued: July 2023