# Nishan Chakraborty

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# EDUCATION

VIT Bhopal University, Bhopal, Madhya Pradesh

Bachelor of Technology (B. Tech) in Computer Science and Engineering Expected: May 2026

CGPA: 8.58 / 10

TECHNICAL SKILLS

Languages: C++, Python, SQL (MySQL), JavaScript, HTML/CSS

Frameworks: React, Node.js, BootStrap

Libraries: pandas, NumPy, Matplotlib, scikit-learn, Tensorflow, Keras

# Work Experience

## Data Analyst Intern

 $September\ 2025-Present$ 

Remote

Insight Fusion Analytics

- Designed and implemented an automated job scheduling system in Python to allocate 20,000+ service tasks daily; built a conflict-free optimization algorithm incorporating business rules such as 8-hour shifts, 1-hour gaps, area restrictions, and recurring job priorities; improved workforce utilization from 63% to 95% and ensured balanced load distribution across 200+ workers.
- Implemented a backtesting system for SMA crossover trading strategy by processing 100,000+ intraday stock price records; developed a Python pipeline with Pandas and Excel automation to compute trade entries/exits, apply 3 different target/stop-loss rules, and export detailed reports; generated 500+ simulated trades, increasing strategy evaluation efficiency by 70%.

#### Projects

## Bengali Sentiment Analysis | Python, SVM, NLP

February 2025 – June 2025

- Engineered a Support Vector Machine (SVM) model to classify sentiment in Bengali texts, increasing accuracy from 65% to 79% on a labeled dataset of 10,000 samples.
- Executed end-to-end data preprocessing on 15,000+ entries, applying tokenization, normalization, and TF-IDF vectorization for optimized feature representation.
- Streamlined model training using Scikit-learn, Pandas, NLTK, reducing runtime by 20%, enhancing deployment-readiness for low-resource environments.

# Customer Churn Prediction | Tensorflow, Keras, Streamlit

December 2024 – January 2025

- Trained a deep learning model using an Artificial Neural Network to classify bank customers based on likelihood of churn, incorporating key features like credit score, tenure, and account activity across a dataset of 10,000 records.
- Performed end-to-end preprocessing (label encoding, scaling) using scikit-learn and monitored model performance with TensorBoard.
- Deployed the solution via a Streamlit web interface enabling real-time, user-friendly predictions with 87% classification accuracy, offering actionable insights to enhance customer retention strategies.

## FarmFlow | MERN, IoT, AI

August 2024 – November 2024

- Built a MERN stack platform integrating real-time soil moisture monitoring (Arduino UNO + sensor) with automated irrigation, enabling smart water usage for farms.
- Deployed an AI-driven multilingual chatbot (Varsha) using LangChain + Mistral AI, delivering farm-specific rainwater harvesting guidance based on soil type and geolocation.
- Designed a responsive UI with React, Node.js, MongoDB, Material UI, and Figma, improving user interaction and awareness of sustainable agriculture practices.

#### OTHER ACHIEVEMENTS

- Smart India Hackathon 2024 College Nominee Selected through multi-round internal hackathon and nominated by college to represent in SIH 2024 national-level competition after rigorous evaluation.
- **DSA Milestone 300+ Problems Solved** (LeetCode, GFG) Solved over 300 problems across LeetCode and GeeksforGeeks, improving proficiency in arrays, trees, DP, graphs, and key data structures.
- Certifications GenAI using IBM WatsonX (IBM Adroit), Data Analysis with Python (IBM), Bits and Bytes of Computer Networking (Google), Marketing Analytics (NPTEL)