



Course: B.Tech, Computer Science & Engineering, 2025

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CGPA : 7.82



| ACADEMIC DETAILS |                        |                  |         |      |  |
|------------------|------------------------|------------------|---------|------|--|
| COURSE           | INSTITUTE/COLLEGE      | BOARD/UNIVERSITY | SCORE   | YEAR |  |
| CLASS XII        | J.V.M. Shyamali School | CBSE             | 74.2 %  | 2022 |  |
| CLASS X          | ST.Thomas School       | ICSE             | 84.17 % | 2020 |  |

| Subjects | / Electives |
|----------|-------------|
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Machine Learning, Artificial Intelligence, Data Structures and Algorithms, Operating Systems, Object Oriented Programming using Java, Database Management Systems, Computer Networks, Software Engineering, Design and Analysis of Algorithms, Data Mining and Data Warehousing, Distributed Operating Systems, Digital Systems Design, Automata Theory and Formal Languages, Cloud Computing

# **Technical Proficiency**

Data Analytics, Tensorflow, Object -Oriented Programming (OOP), Scikit -Learn, NumPy, Pandas, C Programming, PHP, Machine Learning, Python, Cloud Computing, Java, HTML + CSS, Natural Language Processing, Generative Artificial Intelligence, Jupyter notebook, SQL, Data Structures, Linux, MySQL

#### SUMMER INTERNSHIP / WORK EXPERIENCE

#### Machine Learning Intern, Cognifyz Technologies

Mar 2025 - Apr 2025

Engaged in the development and evaluation of machine learning models as part of real-world projects, strengthening foundational ML concepts and coding proficiency.

Collaborated remotely on data-driven problem -solving tasks, demonstrating attention to detail, clear communication, and effective coordination in a team environment.

Explored key techniques such as data preprocessing, supervised learning, and model performance analysis using tools like Python, Scikit-learn, and Pandas.

Emphasized continuous learning by actively researching and applying new ML algorithms and optimization strategies to enhance model accuracy.

## AI & Machine Learning Intern, Teachnook (in association with IIT ROORKEE)

Jun 2024 - Jul 2024

Developed an AI-driven Sentiment Analysis Chatbot in Jupyter Notebook, enhancing response precision via NLP and machine learning techniques.

Incorporated sentiment assessment to evaluate user responses as positive, negative, or neutral, improving conversational Al communication.

Utilized TensorFlow, Scikit-learn, and OpenAl's GPT-driven models to enhance chatbot intelligence and boost user interaction.

# Web Development Intern , Central Coalfields Limited

May 2024 - Jun 2024

Created an Employee Management System utilizing Java, featuring secure login credentials and CRUD functionalities .

Created and enhanced features for viewing , adding , searching , and deleting employee information , boosting data accessibility and management effectiveness .

Combined file management methods to guarantee data retention and facilitate smooth interactions .

#### **PROJECTS**

All-Inclusive Restaurant Analysis and Suggestion System: Forecasting User Preferences, Ratings, and Geographic Information - Machine Learning

Mar 2025 - Apr 2025

First Task: Regressor Model for Decision Trees

A decision tree regression model was created to predict restaurant ratings based on factors such as cuisine types, average

price for two, and location.

performed data preprocessing, including label encoding for categorical variables and imputation of missing values.

Mean Squared Error (MSE) and R-squared metrics were utilized to evaluate the model's performance, while feature importance was analyzed to pinpoint significant predictors.

Second Task: Restaurant Recommendation System

developed a recommendation system that suggests restaurants tailored to customer preferences for price, location, and cuisine utilizing the Nearest Neighbors algorithm.

transformed data by encoding categorical variables like cuisines and locations and addressing missing values.

Suggestions for dining establishments were created by computing similarity scores derived from restaurant features and user feedback.

Third Task: Geographic Data Evaluation and Restaurant Placement

Folium was utilized to generate a geospatial representation of restaurant locations, showcasing them on an interactive map.

# Traffic Flow Classification and Prediction Using Machine Learning and Deep Learning Models - Machine Learning Feb 2025 - Apr 2025

Developed a traffic flow prediction system using machine learning and deep learning models (Decision Tree, Random Forest, SVM, ANN, CNN, GRU, LSTM).

The data underwent preprocessing, which included feature extraction from timestamps, normalisation (Min-Max, Z-score, L2), and feature selection based on model significance.

Traffic was divided into three categories using Random Forest: "Busy," "Average Busy," and "Not Busy." Hourly patterns were analysed to identify peak and idle hours.

Models were assessed using Accuracy, Precision, Recall, F1-score, and G-Mean in order to determine the best traffic forecast technique.

# Employment Analytics: Leveraging Machine Learning for Job-Candidate Alignment and Trend Forecasting - Machine Learning

Jan 2025 - Apr 2025

Created a recruitment system powered by machine learning to align candidates with appropriate positions and predict hiring patterns.

Developed predictive models utilizing Python, Scikit-learn, and NLP methods, improving recruitment precision.

Examined trends in industry hiring and candidate characteristics to deliver data-informed recommendations for improving recruitment .

# Real-Time Facial Emotion Detection System - Machine Learning And Deep Learning Jan 2025 - Apr 2025 Created a real-time facial emotion detection system for deep learning -based emotion analysis utilising DeepFace , OpenCV ,

and Python.

Automated facial expression recognition and categorisation from still photos, recognising common emotions such as surprise, rage, and happiness.

Haar cascade classifiers were used to implement face localisation , while OpenCV was used to overlay emotion labels for intuitive feedback .

Matplotlib was used to effectively visualise the analysis findings in real time.

Designed the system to be scalable and adaptable for wider use in sentiment monitoring, retail analytics, and surveillance.

#### Parking Management System - Embedded Systems

Sep 2024 - Nov 2024

Created a real-time automated Parking Management System in C to enhance the efficiency of vehicle parking activities .

Automated slot allocation, real-time fee computation, and durable data storage were achieved through file handling.

Activated search capability for parked cars utilizing registration numbers, improving retrieval effectiveness.

Developed the system to be scalable, intuitive, and versatile for shopping centers and office spaces.

### Sentiment Analysis Chatbot - Artificial Intelligence And Machine Learning

Jun 2024 - Jul 2024

Developed an AI-driven Sentiment Analysis Chatbot in Jupyter Notebook, enhancing response precision via NLP and machine learning techniques.

Incorporated sentiment assessment to evaluate user responses as positive, negative, or neutral, improving conversational Al communication.

Utilized TensorFlow, Scikit-learn, and OpenAl's GPT-driven models to enhance chatbot intelligence and boost user interaction.

#### Employee Management System - Software Development

May 2024 - Jun 2024

Created an Employee Management System utilizing Java, featuring secure login credentials and CRUD functionalities .

Created and enhanced features for viewing, adding, searching, and deleting employee information, boosting data accessibility and management effectiveness.

Combined file management methods to guarantee data retention and facilitate smooth interactions .

#### **EXTRA CURRICULAR ACTIVITIES**

#### Fresher's Welcome Event Volunteer

Assisted in organizing and managing the Fresher's Welcome event, ensuring smooth registration, coordination, and hospitality.

| CERTIFICATIONS  |                      |  |  |  |
|---|----------------------|--|--|--|
| CERTIFICATION   | CERTIFYING AUTHORITY |  |  |  |
| Certificate Of Virtual Internship (AWS AI ML)             | Eduskill             |  |  |  |
| Certificate Of Virtual Internship (Juniper Networks Cloud | Eduskill             |  |  |  |

# Computing ) WORKSHOPS

#### Artificial Intelligence Workshop

Organized by: Al Over Chai | Date: Aug 2024

Participated in a masterclass focused on the fundamentals and applications of Generative AI.

#### Hyperledger Fabric & Docker Workshop

Organized by: KIIT-TBI, supported by DST, Govt. of India | Date: Apr 2023

Gained hands -on experience in blockchain enterprise development using Hyperledger Fabric .

Explored blockchain architecture, smart contracts, and deployment using Docker.

## **PUBLICATIONS**

Performance Evaluation of Security Enabled Surgically Implantable Smart Pacemakers in Cardiac Risk Patients

Journal name: CEUR Symposium | Publication date: Aug 8, 2024

#### **SCHOLARSHIPS**

Coal India Merit/General Scholarship

Apr 2025

### VOLUNTEER EXPERIENCE

Litter Paws - Role: Volunteer | Cause: Animal Welfare

Apr 2023 - Apr 2024

Assisted in daily care, feeding, and medical support for rescued animals, ensuring their well-being and hygiene.

#### LANGUAGES KNOWN

English, Hindi