DHIRAJ SINGH

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ACADEMIC DETAILS

B Tech (Computer Science & Engineering)	2021-2025	MMMUT, Gorakhpur	6.63/10.0
Class XII (CBSE)	2020	Jawahar Navodaya Vidyalaya, Auraiya	80.6%
Class X (CBSE)	2018	Jawahar Navodaya Vidyalaya, Auraiya	88.0%

INTERNSHIP/EXPERIENCE

Subject Matter Expert **Chegg India Ltd** *Aug 2023-May- 2024*

- **Solved more than 85 problems in Core Computer Science subjects**.
- Data Structure and Algorithms, DBMS, Computer Architecture & Organization
- Operating system, Computer Network, Machine learning and artificial intelligence

PROJECTS

Sorting_Visualizer

- Developed a **Sorting Visualizer** using **React.js** and **Tailwind CSS**.
- Implemented multiple sorting algorithms, including **Bubble Sort, Insertion Sort, Merge Sort, Quick Sort, Selection Sort**.
- Added functionality to **select array size** and **generate a randomized array** for sorting.
- Enabled users to **choose a sorting algorithm** and visualize real-time sorting animations.
- Improved user interaction with **dynamic controls and smooth animations**.

Log Classification System

- Designed and developed a Log Classification System integrating Regex, Sentence Transfomer and LLMs to effectively handle logs with varying levels of complexity.
- Deployed a FastAPI server to process log data via RESTful APIs enabling seamless integration with existing systems
- Improved log classification accuracy by 40% through the hybrid architecture compared to rule-based systems alone. Reduced operational costs by 30% by automating log analysis and minimizing manual intervention.
- Technologies used: Python, FastAPI, Sentence Transformers, scikit-learn and LLMs.

Diabetes Predictor

- Developed diabetes predictor using ML algorithms: Logistic Regression, Decision Tree, Random Forest, SVM, k-NN, XGBoost.
- Data Preprocessing: Handled missing values, outliers, and feature scaling for optimized model performance.
- Implemented feature engineering: Feature selection and extraction for better prediction accuracy.
- Model Evaluation: Used accuracy, precision, recall, F1-score, and ROC-AUC.
- Hyperparameter tuning with grid search and cross-validation.
- Achieved best results using XGBoost with improved accuracy and reduced false positives.

ACHIEVEMENTS

- 5 star in Hacker Rank
- Qualified gate in third year within top 10% of total candidates appeared
- Within top 5% in NPTEL course " Introduction to Machine Learning- Jan 2024

SKILLS

Technical: C, C++, Python, SQL, Linux, Docker, Kubernetes, MS-Excel, MS-Word,
Soft Skills: Proficiency in communication, Critical thinking, Negotiation, Teamwork, Problem solving
Certificates: Machine Learning
Interests:

- ML, DL, NLP, Large Language Model, Blockchain, Cryptography, Big Data, Time Series Forecasting.