Chinmay Saraf

IT Student

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EDUCATION

Vishwakarma Institute of Technology B. Tech in Information Technology	CGPA: 8.76 August 2021 – Present
Sarosh Junior College HSC	93.83% June 2019 – May 2021
CBSE	90.60%
SSC	June 2019

SKILLS

Technical Skills: C, SQL (DBMS), JAVA (OOPS) Linux-OS, Data Structures and Algorithms, Basic Python, AI (ML,DL), R (Data Visualization), Tableau (Basics)

Application Tools/Editors: VS Code, Google Colab, Eclipse (Java), GitHub, Matlab, MS Office Suite

Projects And Research

Credit Score Optimization System

Link

- * Developed a Credit Score Optimization System utilizing **Python**, Flask, which analyzes user financial behavior and provides actionable recommendations to improve credit scores, addressing common consumer challenges in financial management.
- * Implemented machine learning models, including **XGBoost** and a multi-layer Artificial Neural Network (ANN), achieving high accuracy in predicting credit scores through advanced techniques like **SMOTE**(Synthetic Minority Over-sampling Technique) for dataset balancing and hyperparameter tuning via GridSearchCV.
- * Designed a user-friendly interface for real-time credit score predictions, enabling users to input financial data, thereby enhancing their understanding of credit management and improving financial decision-making.

Performance Analysis for Diving Sport

Link

- * Integrated deep learning (OpenPose, YOLOv8) and **Fuzzy Logic** to assess dive performance comprehensively. Analyzed results for detailed insights into diver's technique and improvement areas.
- * Employed OpenPose for precise detection of 33 key points, calculated joint and segment angles meticulously for biomechanical precision.
- * Integrated YOLOv8 for accurate categorization of men's and women's dives. Trained on UCF Diving and Diving48 datasets, achieving high classification accuracy.
- * Implemented Fuzzy Logic to **analyze** dive phases and provided actionable feedback for performance improvement using optimal dive standards.

Enhancing KNN with Dimensionality Reduction

Link

- * Achieved a 27% reduction in **KNN** (K-Nearest Neighbor Algorithm) recognition time by implementing an innovative standard deviation-based feature reduction technique.
- * Successfully cut recognition time by 30.25% in the breast cancer dataset by reducing 30% of features while maintaining high accuracy levels.
- * Enhanced the scalability of the KNN algorithm for large, high-dimensional datasets by effectively addressing computational and memory challenges.
- * Conducted thorough analysis and optimization of feature reduction, ensuring practical and efficient KNN performance with 18-30% fewer features.

Additional Information