Nikhil Tanwar

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ABOUT ME

Passionate computer science student at Bennett University (Times Of India Group) with a strong interest in machine learning, data science, and technology. Ready to create impactful code together!

EDUCATION

B.Tech Computer Science
Bennett University (Times Of India Group)
2020-24

High School
Vidya Niketan Birla Public School,Pilani
2017-19

LINKS

github
linkedin

RESPONSIBLE POSITIONS

Teaching Assistant, Machine Learning Course:

- Guided and mentored 30 students in an introductory machine learning course. Assisted with course material preparation, conducted tutorial sessions, and provided guidance on assignments and projects.

SKILLS AND INTERESTS

- **Languages:** Python, C/C++, R, Tablue
- **Tools:** Git, Github, Jupyter Notebook, Visual Studio Code
- **Frameworks:** TensorFlow, PyTorch, OpenCV
- **Cloud/Databases:** AWS, MySQL, MongoDB
- **Soft Skills:** Teamwork and Communication

CERTIFICATIONS

- Google Data Analytics
- Cryptography- University of Maryland
- Fundamentals of Deep Learning
- Fundamentals of Accelerated Computing with CUDA Python

PERSONAL PROJECTS

Heart Disease Analysis NOV 2022

- Analyzed cardiovascular disease data using Python and data science frameworks for data exploration and feature engineering.
- Identified factors that can predict the probability of heart disease.
- Developed a >90% accurate ML model to predict heart disease presence based on analyzed data.
- Teamed up to complete the project, maintained shared repository for streamlined workflows and improved efficiency.

STOCKDOC OCT 2021

- Created a web application to study and forecast stock prices using Python and several data science packages.
- Extracted stock data using Yahoo Finance API and performed data preprocessing and feature engineering.
- Developed a prediction engine to forecast stock prices using machine learning models implemented with TensorFlow.
- Utilized Streamlit to create a user interface for the application and deployed the web app on a server.

Real-Time Object Detection May 2023

- Real-time object detection uses computer vision to identify and locate objects in real-time video streams or images
- YOLOv4 and TensorFlow are popular technologies used to develop such systems.
- Create a real-time object detection system using annotated data, train YOLOv4 with TensorFlow, optimize for accuracy and speed.
- output of the system includes the bounding boxes, object classes, confidence scores for each detected object

Newspaper and Twitter Sentiment Analysis May 2023

- Completed sentiment analysis project for newspapers and Twitter data using NLP and ML techniques.
- Developed real-time system for accurate sentiment analysis and valuable insights
- Utilized Python, NLTK, and Scikit-learn for robust data preprocessing and analysis.
- Collaborated on dataset curation, demonstrating strong problem-solving, analysis, and visualization skills.

RESEARCH

Efficient and Secure Blockchain based Homomorphic encryption for Intelligent Transport System - 2023

- A secure and efficient traffic route management system was developed for Intelligent Transport Systems using homomorphic encryption and blockchain technology
- Real-time messages were encrypted and sent to a fog node to avoid safety flaws and reduce costs.
- The traffic control center decoded the data to manage congestion and control travel routes effectively.
- The system was tested and proven to be a safe and effective method for controlling travel routes in IDSs.