Nitish Kumar

+917361989807 nitishkumar.aiml@gmail.com linkedin.com/in/nitish-kumar-669b37259

Technical Skills

Languages and DataBases: Python, Pandas, Numpy, SQL, Scikit-learn, TensorFlow, Keras, PyTorch, Open Cv
Visualization Tools: Tableau, Power BI**,** Seaborn,
Other Skills: Cyber Security ,Cloud Computing, MS-Office, Weka, VS Code, GitHub

Experience/Projects

Hubbleminds Labs Private Limited **September 2024 – Present**
Machine Learning Intern *Bengaluru,India(Remote)*

- Developed a **stock price prediction model** using linear regression in **Python.**
- Conducted **Exploratory Data Analysis (EDA**) on historical datasets, including commodity prices and tradingvolumes.
- Executed **feature engineering** to enhance model performance **NumPy**
- Implemented **model development** and **evaluation techniques** to ensure accuracy.
- Created a **prediction system** to forecast stock prices, gaining hands-on experience with key **machine learningconcepts.**

Gao Tek **May 2024- August 2024**
Ai Intern *Manhattan,New York(Remote)*

- **Utilized AI Tools**: Employed **ChatGPT** and **Google Gemini** to complete prompts and prepare files for companyprojects.
- **Engaged in Prompt Engineering**: Enhanced content quality and relevance through effective prompt strategies.
- **Collaborated with Team**: Streamlined documentation processes and supported project initiatives

Personal Projects/Awards & Achievements

Artificial Intelligence Chatbot for Personalized Healthcare Recommendations | *Machine learning* **July 2024- August 2024**

- **Developed an AI-powered chatbot** to provide personalized medical advice using **Natural LanguageProcessing (NLP**) and **machine learning algorithms**.
- **Classified symptoms** to differentiate between severe and minor conditions.
- **Offered medication suggestions** and recommended alternative treatments.
- **Secured user interactions** to enable continuous learning and improve recommendations.
- **Utilized tools** such as **TensorFlow**, **SpaCy**, and **SQL databases** to enhance healthcare accessibility.
- **Empowered users** with immediate, tailored support for minor health concerns.

Cats vs Dogs Image Classification using CNN | *Deep learning* **July 2024- August 2024**

- In this project, I developed a **Convolutional Neural Network (CNN) model** to classify images as either cat and Dog.
- I utilized the **Kaggle Cats vs. Dogs dataset**, which contained a balanced collection of labeled images, to leveragedeep learning techniques for accurate image classification.
- I began by **preprocessing the data**, resizing images for **consistency** and applying **data augmentation techniques** such as **flipping**, **rotation**, and **zoom** to enhance the model's **robustness**.
- For the CNN architecture, I designed a structure with multiple **convolutional** and **pooling layers**, incorporating **dropout layers** to mitigate **overfitting**.
- I used **ReLU activation functions** for the **hidden layers** and **SoftMax** for the **output layer**.
- During the **training process**, I trained the model on a designated **training set** while continuously monitoring itsperformance on a **validation set**.
- I employed techniques like **learning rate adjustment** and **early stopping** to optimize the training outcomes
- To evaluate the model's performance, I used metrics such as **accuracy**, **precision**, **recall**, and a **confusion matrix** ona separate **test set**.
- The results demonstrated high classification accuracy in distinguishing between cats and dogs, and I visualized the **performance metrics** through accuracy and loss graphs, which provided clear insights into the model's training progression and overall effectiveness in making accurate predictions.

- These visualizations identified improvement areas and guided targeted **performance enhancements**.

Chatbot Using NLTK | *Natural Language Processing* **July 2024- August 2024**

- I developed a **chatbo**t as an **AI program** that engages in conversation via text or voice.
- I utilized the **nltk.chat module** to simplify the chatbot creation process with its **generic framework.**
- **For Chat Class** I used a dictionary of question-response pairs to effectively manage user input.
- **Reflections Dictionary**: I included a reflections **dictionary** to manage pronouns in the chatbot's responses
- **Imported Libraries**: Integrated essential **NLTK libraries** to facilitate natural language processing
- **Created QA List**: Designed a structured list of regex patterns paired with appropriate responses for efficient query handling.
- **Defined Welcome Message**: Developed a user-friendly function to greet users and guide them on how to interact with the chatbot
- **Instantiated Chat Class**: Created an instance of the Chat class, utilizing the QA list and reflections for personalized interactions.
- Created a **Chat class instance** using the QA list and reflections for tailored interactions
- Initiated user engagement with the **chat.converse**() method for real-time interaction.

Attendance System using Python | *Python, MySQL, OpenCV* **July 2023- August 2023**

- I developed an **Attendance System using Python** to streamline the tracking and management of attendance in educational and organizational settings.
- The system features a **user-friendly interface** that allows for easy **data entry**, whether manually or through automated methods like **QR code scanning** and **biometric recognition**.
- Utilizing a **database** (SQLite or MySQL), the application securely stores attendance records, enabling efficient **retrieval** and **update.**
- It also includes **data visualization** tools to clearly present attendance patterns and may feature notifications to alert users about their attendance status.
- Overall, this project significantly enhances the efficiency and accuracy of **attendance management**, offering valuable insights that support informed decision-making.

Stock Price Prediction model using LSTM Neural Network | *Python, TensorFlow, Keras,* **July 2023- August 2023**

- I used **Python** for implementing the machine learning model, leveraging its extensive libraries.
- I utilized **TensorFlow** with **Keras** to simplify the building and training of neural networks.
- I relied on **Pandas** for data preprocessing and **NumPy** for numerical computations.
- I employed **Matplotlib** and **Seaborn** for visualizing results and enhancing interpretability.
- I collected historical stock price data using **Yahoo Finance API** and **Alpha Vantage API**.
- I worked in **Jupyter Notebook** for interactive coding and used **PyCharm** and **VSCode** for development.
- I utilized **Git** for tracking code changes and collaboration.

Sales Forecasting and Data Enrichment | *Python, TensorFlow, Keras, Scikit-learn, SQL* **July 2023- August 2023**

- I developed a **robust sales forecasting model** that not only predicts future sales based on historical data but also enriches the dataset with valuable external information.
- By incorporating a variety of data **enrichment techniques**—such as economic indicators, seasonal trends, and market dynamics.
- I have used these strategies to **significantly enhance** the predictive power and accuracy of my model.
- With a strong focus on **data-driven decision-making**,
- I have aimed to **transform how organizations approach sales planning**, ultimately driving growth and improving operational efficiency.

QR Code Scanner using Machine Learning | *Python, Machine Learning* **July 2023- August 2023**

- I developed the **QR Scanner using Machine Learning** project to create a robust and efficient QR code scanning system that employs machine learning algorithms to detect and decode QR codes from images.
- This system is designed to enhance the accuracy and speed of **QR code scanning,** making it suitable for a variety of applications, including **inventory management, payment systems, and data tracking.**
- By **utilizing advanced machine learning techniques**, I aimed to improve user **experiences** and streamline processes across multiple industries, ultimately enabling businesses to operate more efficiently and effectively in an increasingly digital world.

Licenses & Certifications

- Artificial Intelligence: Human-computer Interaction Methodologies **(Infosys, Springboard)**
- Introduction to Data Mining **(Infosys ,Springboard)**
- Network Security Threats and Their Impact **(Infosys, Springboard)**
- Machine Learning with Python **(Coursera, IBM)**
- AWS Academy Graduate - AWS Academy Cloud Foundations **(Amazon Web Services)**
- Cisco Network Essential **(Cisco Networking Academy)**
- My Grow With Google Identity India Learning Google Cybersecurity **(Google)**
- Ai and big data in biology, healthcare and Cancer Research **(Marwadi University)**
- Object Oriented Programming in Java **(Coursera, University of California San Diego)**
- Introduction to bash shell scripting **(Coursera)**
- Ai for india 2.0 **(GUVI Geek Networks, IITM Research Park)**
- Foundation of Cyber Security **(Coursera)**
- Google AI Essentials **(Google)**

Education

Marwadi University **Oct 2021 – May 2025**

Bachelor of Technology Computer Engineering-Artificial Intelligence *Rajkot, Gujarat*