# NIRANJAN JHA

#### Nangloi, Delhi

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#### **EDUCATION**

## USAR, guru gobind singh indraprastha university, Surajmal Vihar

2022 - 2026

B. Tech - Artificial Intelligence and Machine Learning - SGPA (sem 4) - 7.7

Surajmal Vihar, New Delhi

# COURSEWORK / SKILLS

• Python

• DSA

• Cloud Computing

- Machine Learning
- Front-End Developer
- Software Engineering

#### **PROJECTS**

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2023-2024

- Data Preparation: Employs state-of-the-art algorithms to analyze and detect deepfakes with high accuracy.
- Feature Extraction: Convert audio into spectrograms or MFCCs (Mel-frequency cepstral coefficients) for input to the RNN.
- Model Development: Build RNN and Design an RNN (e.g., LSTM or GRU) to process sequential audio features.
- Train Model: Train the RNN on the processed audio data to classify audio as real or deepfake.
- **Deployment and Monitoring:** Deploy the model for real-time analysis and continuously monitor its performance, updating as needed.

## Deepfake-Face-Recognition 🗷 | Machine Learning, Python, streamlit, IDE - VS Code

2024

- \* **Deepfake Detection:** Employs state-of-the-art algorithms to analyze and detect deepfakes with high accuracy.
- \* Multi-Model Approach: Utilizes various neural network architectures and pre-trained models for robust detection capabilities.
- \* **Real-Time Analysis:** Provides real-time evaluation of video frames and images to identify potential deepfakes.
- \* User-Friendly Interface: Includes an intuitive interface for easy interaction and result interpretation.

#### 

2024

- \* **Objective:** Develop a chatbot using IBM Watson Assistant to [e.g., automate customer support, handle frequently asked questions, etc.]. IBM Watson Assistant was selected for its advanced natural language understanding and easy integration capabilities.
- \* **Design:** Configured intents, entities, and dialog flows within IBM Watson Assistant to effectively manage user interactions and deliver accurate responses.
- \* Integration: Implemented the chatbot across [e.g., website, mobile app] and connected it to relevant backend systems or APIs for enhanced functionality.
- \* Evaluation: Monitored performance through metrics such as accuracy and user feedback, and adjusted the chatbot to improve effectiveness. Planned future enhancements include.

### Stock Market Prediction | Machine Learning(SVR Model), HTML, CSS

 $\boldsymbol{2024}$ 

- \* Objective: Predict stock market prices by utilizing Support Vector Regression (SVR) to model and forecast future price movements based on historical data.
- \* Implementation: Collect and preprocess historical stock market data, apply SVR to capture complex patterns and relationships in the data, and train the model to make accurate predictions.
- \* Evaluation: Measure the model's performance using metrics like Mean Absolute Error (MAE) and Root Mean Squared Error (RMSE), and compare the predicted prices with actual market data to assess accuracy and reliability.

#### INTERNSHIP

# 1. University School of Automation and Robotics (USAR) Machine Learning

 $06\ 2024 - 09\ 2024$ 

Delhi, India

· During this internship, we studied **Machine Learning** and developed a project utilizing the Support Vector Regression (SVR) model to predict **Stock Market Trends**.

**2.IBM**  $07\ 2024 - 08\ 2024$ Delhi, India

## Artificial intelligence

\* In this Internship, we explore Artificial Intelligence (AI) concepts and apply them to develop a chatbot Project.

#### TECHNICAL SKILLS

Languages: Python,C++, C, SQL

Technologies/Frameworks: HTML, CSS, React, NodeJS Developer Tools: VS Code, Jupyter, Google Colab, Canva

## **CERTIFICATIONS**

Python Pro Bootcamp- Udemy

Artificial intelligence - IBM

#### EXTRACURRICULAR

\* I enjoy working on hardware projects and have created several robots, including a Line Follower Robot, an Obstacle Avoidance Robot, and a Laser Security Alarm, among others.