Nitin Singh

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**Education** 

Uka Tarsadia University | Surat, Gujarat

B.Tech Artificial Intelligence & Data Science (8th Semester)

Sep 2021 - Expected May 2025

# **Experience**

Al/ML Intern | JBcodeapp, Surat, Gujarat

May 2024 - June 2024

Agg. CGPA: 8.48

Project : Student Performance Analysis | Python, Numpy

- Applied MLOps concepts to create a robust machine learning pipeline.
- Developed the app backend, implementing key stages including data collection, preparation, and transformation, model trainer.

## Al/ML Trainee | AlgoBrain Al, Surat, Gujarat

Sep 2023 - Jan 2024

Project : Movie-Ticket Booking Chatbot | DialogFlow CX

- Built a demo Movie-Ticket Booking Chatbot in DialogFlow CX.
- Explored the practical implementations of Time Series Analysis, moving averages and techniques like SARIMAX, ARIMA, etc.

## Al/ML Engineer Intern | ELaunch Solution Pvt. Ltd., Surat, Gujarat

Dec 2024 - Present

- Implemented a System for Face Detection and Image Search based on detected face among the large dataset of Images.
- Explored Multiple Open-Sourced Models of CV and NLP to study their architecture and working

# **Projects**

## Vaccine Uptake Prediction Model | Numpy, Sklearn, Random Forest Algorithm

**Github Link** 

- Developed a dual-prediction model to forecast individual likelihood of receiving XYZ and seasonal flu vaccines.
- Achieved 87% accuracy in predicting XYZ vaccine uptake, 23% above baseline.
- The goal of this project is to predict the likelihood of individuals receiving two types of vaccines.

#### Face Recognition Web Application | RetinaFace, Facenet

**Github Link** 

- This is a Flask-based web application for face recognition. Users can upload or capture photos to find matched faces from a dataset. The app also provides options to download all matched photos as a zip file.
- Ensuring Proper Security implementation by adding feature "Authorized access only by Password-Protected-Link".
- Achieved 96.3% face recognition accuracy on a diverse dataset of 500+ images.

### Object Detection and Distance Measurement | Computer Vision, YOLOv5, pyttsx3

**Github Link** 

- Developed a real-time object detection system using YOLOv5x model to detect multiple objects in dynamic environments.
- Implemented custom distance measurement algorithm.
- Integrated the system with speech output for real-time feedback.
- enhancing usability in practical applications like autonomous navigation.
- Achieved 92.7% accuracy in distance measurements within 10 meters range.

#### Text Extraction from the image | GOT OCR2.0, EasyOCR, Gradio, HuggingFace

**Github Link** 

- Developed a robust text extraction system capable of accurately processing a wide range of image types and text styles.
- Developed a versatile system combining GOT OCR2.0 and EasyOCR LLM models for accurate text.
- Used Hugginface and Gradio for Deploying the project.
- Achieved 94.8% text recognition accuracy in english language and font styles...

#### Gender Classification API | FastAPI, Opency, Caffemodel

**Github Link** 

- This is a FastAPI app for gender detection from face images using MTCNN for face detection and a pre-trained model.
- It provides 1 simple API endpoint that processes uploaded images and returns gender prediction results within 2-3 seconds.

### Skills and Hobbies

**Languages:** Python, Javascript, C/C++ (basic)

**Tools and Technology:** HTML, CSS, Node.js, HuggingFace, Power BI, Mistral - OCR **Frameworks:** Pandas, Numpy, Scikit-Learn, PyTorch, EasyOCR, GOT OCR 2.0

Technical: Machine Learning, Deep Learning, Computer Vision, GenAI, Mongodb, FastAPI, Rest API

Hobbies: Robotics, Cricket, World Affairs

## **Extracurricular Achievements**

- Winner in Quiz(Group) Competition at College Fest 2023
- 2nd Runner-Up in Script Writing(Solo) at College Fest 2023
- Selected in Finnovate and Amalthea Hackathons by IITGN
- Selected in the Perplexity Al Business Fellow Program 2025
- Selected in Aspire Program by Harvard Business School
- Participated in Bhartiya Antariksh Hackathon 2024 by ISRO

## **Extracurricular Activities**

## Member | Swaayan Drone Club, SVNIT, Surat, Gujarat

June 2024 - Present

- Assisted for Drone Bootcamps by building and calibrating drones using beta flight and mission planner.
- Explored drone hardware including flight controllers and ESC circuit boards.

## User Software Tester (Part-Time) | Nothing India, Remote

Feb 2023 - Present

- Conducted user trial testing for Nothing Phone 1, Nothing Phone 2, Nothing 2a, Android 14, Cmf Watch, and more.
- Identified bugs in the software, provided surveys and collaborated with experts in this field.

## Summer Analytics | IIT Guwahati, Online

July 2024 - Aug 2024

- Successfully completed Summer Analytics 2024 Program.
- Received a Certificate of Excellence for completing the program in the top 10.

## Aspire Leaders Program | Aspire Institute, Harvard Business School, Online

Aug 2024 - Nov 2024

- Successfully completed all three modules of the program.
- Gained Communication, Leadership and Problem-Solving Skills.

## Al Business Fellow | Perplexity, Online

Feb 2025 - Present

- Selected in the Perplexity Al Business Fellow Program 2025.
- Attended First Session and Connected with other Participants .

## Certificates

- Python for Data Science by NPTEL
- Recent Advancements in AI and Robotics by SVNIT
- Completed AI/ML for GeoData Analysis by ISRO
- BOOT CAMP 8.0 on Drone Technology and Applications by SVNIT
- Completed Advanced Data Analytics Capstone course by Google
- Completed Machine Learning for CV from Coursera

## References

Ms. Manali Modi +91 9662643392 Assistant Professor CGPIT, Bardoli