# Dev Kotak

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#### Education

### Carleton University (Master of Engineering)

September 2023 - Present

Electrical and Computer Engineering with collaborative specialization in Data Science

Charotar University of Science and Technology (Bachelor of Technology)

Computer Science and Engineering

GPA: 3.92/4.00

June 2022

## Experience

#### Space Application Centre (ISRO) | Research Intern

Dec 2022 - May 2023

- Worked on Machine learning techniques to estimate hydrological flues over different river basins of India.
- Performed Analysis on Indian river basins dataset.
- Analysis of Rainfall, Evapotranspiration, Groundwater Recharge helped to manage water resources across rivers.

#### Jupiter AI Labs Pvt. Ltd. | Machine Learning Intern

Dec 2022 - Feb 2023 Part-time

- Created End to End Machine Learning solutions for Knowledge hut Client.
- Worked on integration of ChatGpt and Chrome extensions.
- Worked on AI Prompt Engineering project.

#### CHARUSAT (DEPSTAR) | Machine Learning Intern

May 2022 - June 2022

- Produced a lightweight solution for Yoga Pose estimation which predicts the yoga asanas using MediaPipe.
- Classified Yoga poses using angle heuristic approach by detecting human poses and also worked on Research paper. Worked on Deep Learning based solution for classification of Yoga asanas for the best results.

## Projects

#### Digital Trainer for Yoga Pose estimation using Deep Learning

Python, NumPy, MediaPipe, Matplotlib, Pandas, OpenCV, VS Code

Apr 2022 - Jan 23

- Developed a solution for detecting and predicting yoga asana by analysing various methodologies for pose detection and estimation. Studied different topologies for better results.
- Used MediaPipe lightweight library for landmark detection which accurately identifies more keypoints as compared to existing solutions.

#### Sentiment analysis on COVID-19 tweets | NodeJS, Express.JS, MongoDB, ReactJS

Feb 2022 - Mar 2022

- I have implemented solution for sentiment analysis on COVID-19 tweets. The training dataset consists of 41157 tweets and the testing dataset consists of 3798 tweets.
- The use of different models Logistic Regression, DecisionTree classifier, Naive Bayes classifier, and RandomForest Classifier is also demonstrated.

#### Student Grievance Redressal Portal | NodeJS, Express. JS, MongoDB, ReactJS

August 2021 - October 2021

- Student grievance redressal portal is an online web portal that helps the institute to establish a way to solve all grievances which are raised by students.
- In this system, the admin can view the complaint details and takes further actions required accordingly. Each complaint will have a definite time limit associated with it.

#### Skills

Programming: Python (Pandas, PyTorch, NumPy, Scikit-learn, Tensorflow, Mediapipe, OpenCV, Seaborn, Matplotlib, etc.) C/C++, Java, HTML/CSS, JavaScript, SQL, NodeJs, ExpressJs, MongoDB, MATLAB, Botpress.io.

Concepts: Object Oriented Programming, Machine Learning, Data Science, Natural Language Processing (Spacy, NLTK, Textblob), Data Structure and Algorithms

Platform: Linux, Android Studio, Google Data Studio, Anaconda, Google Cloud Platform, Git, VS Code, IntelliJ IDEA, Atom

Soft Skills: Soft Skills: Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation, Critical thinking