# Ankit Sonal Prasad

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## **EDUCATION**

## **Indian Institute of Technology Bombay**

BTech Chemical Engineering

 $\begin{array}{c} {\rm Mumbai, India} \\ {\it July}~2019-{\it Apr}~2023 \end{array}$ 

#### PROFESSIONAL EXPERIENCE

## MapIT.ai Machine Learning Research Intern

Mumbai, India May 2023 - June 2023

- Leveraged expertise in deep learning to work with the **ResNet1D** (Residual Neural Network) model of **Robust Neural Inertial Navigation** in the Wild, improving model efficiency and accuracy.
- Tasks included model training, parameter tuning, and the application of augmentation techniques to expand and enrich the dataset, resulting in enhanced model performance

Kearney Algorithm Software Engineering Intern

Mumbai, India May 2022 - Aug 2022

- Worked in the HOPTEK team to design logistics algorithms to get optimized Travel Plan for the Auto OEM Team
- Designed a variation of **Genetic Algorithm** and **Single Depot Capacitated Vehicle Routing Problem** for finding the best possible Trucking routes.
- Implemented the Initial Dispatch Plan in Python using standard graph based shortest path algorithms like Dijkstra's and Kruskal's Algorithm to get a Initial Working 70% accurate Solution

Tech Japan Inc Full-Stack Developer

Remote May 2022 - July-2022

- Worked in both Frontend and Backend Teams to add optimizations in the company portal and Developed custom Thumbnails using Link Preview npm to improve recruiter experience in judging candidates Portfolio
- Fetched Candidates Programming Profile Data JSON to render on Application sidebar using website's API
- Implemented Skills Match Sorting for the Student Profile using Github API Languages and Stored Languages to give better List of Candidates.

FitBuddy- E-trainer Analytics Data Science Intern

Remote May 2021 - July-2021

- Worked on OpenCV and Mediapipe Libraries to establish the core logic of Pose Detection Model
- Created and Validated training sets for the k-NN classifier described in the MediaPipe Pose Classification
- Implemented detection of **7 different exercise poses** of Yoga and Gym Exercises based on the **Mediapipe Pose** Classification solutions in Python

Coding Ninjas Competitive Programming Teaching Assistant

Remote Jan 2022 – Apr-2022

• Solved Student's Doubts enrolled in the Competitive Programming Course of Coding Ninjas with a rating of 4.5+/5.0

### Projects

#### Modern E-Commerce Website | GitHub

- Built a Responsive E-Commerce Website with all advanced Cart Functionalities with NextJs as a Backend Endpoint
- Managed Advance State Management of the entire application using **React Context API** and the entire content of the app using **Sanity**
- $\bullet \ \ \text{Integrated } \textbf{Stripe} \ \text{to manage payments, products, shipping rates, and the entire checkout process.}$

### Fitness Trainer Application | GitHub

- Implemented Pose Detection using Mediapipe Library to obtain landmarks
- Used the KNN classification to evaluate the exercise movements and to count the Reps
- Implemented the distance algorithm to make sure the user is at the proper distance from the camera and in the frame Real-Time Chat Application(Deployed)| GitHub
  - $\bullet \ \ {\rm Developed} \ \ {\rm a} \ \ {\rm Web} \ \ {\rm Application} \ \ {\rm in} \ \ {\bf NodeJS} \ \ {\bf and} \ \ {\bf ExpressJS} \ \ {\rm for} \ \ {\rm real} \ \ {\rm time} \ \ {\rm client-server} \ \ {\rm communication} \ \ {\bf using} \ \ {\bf Socket.io}$
- Designed the setup in the form of Rooms inspired from fictional characters for different Web Socket Hosting space Vehicle Number Plate Detector  $\mid GitHub \mid$ 
  - Leveraged Python Tensorflow Object Detection to be able to detect license plates using Kaggle Data
  - Trained the model with a set of 400+ images of Number Plates and extracted text using PyTorch and EasyOCR

## SKILLS

Codechef: Achieved a Global Rank of 54 in Starters 41 Div 4. Max Rating - 1923 Profile

Leetcode: Solved 950+ Problems based on Data Structures and Algorithms. Profile

**Programming:** C++, Python, MATLAB, MySQL, Javascript

Frameworks/Technologies: Github, NextJs, ReactJs, NodeJs, Stripe, Sanity, Tensorflow, Mediapipe

Coding Skills: Solved 1200+ Problems based on Data Structures and Algorithms on different Platforms. Active on Competitive Platforms like CodeChef, Codeforces

Major coursework:Introduction to Programming, Applied Algorithms, Computational Methods, Competitive Programming by Coding Ninjas

**Institute Technical Student Program Mentor:** Mentored a group of 4 student in the summers '22 on a Project based on Computer Vision. Provided references and resources for a successful completion of the Project till stage 2