




ABHINAV TEMBULKAR

Delhi, India

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Objective

To contribute to impactful research in robotics and computer vision by joining CAVAS lab focused on autonomous systems, while advancing my skills in perception, control, and learning-based methods.

Education

University at Buffalo

Masters in Computer Science and Engineering

2024 - 2026

CGPA: 3.75

University School of Information Communication and Technology

Bachelor of Technology, Computer Science and Engineering

2017 - 2021

CGPA: 7.96

Independent Projects

FaceMaskDetector | *TensorflowJS, Azure* | [Link](#)

August 2020

- Developed a deep learning based **face mask detector** using TensorFlow.js and **modified ResNet 152 v2** architecture, achieving an accuracy over **95%**. Based on the final year Research project on **Real-time face mask detection**
- Model runs on web page itself, eliminating need for backend servers, reducing detection times and computational costs.

SwiftMask | *OpenCV, Python* | [Link](#)

October 2023

- Developed a **fast and computationally efficient** face mask detector using **Haar Cascades and facial landmarks**. The model is purely machine learning-based, making it ideal for deployment on resource-constrained devices.

Temperament Assessor | *Pytorch, Python* | [Link](#)

September 2021

- Developed a **PyTorch-based NLP** model with over **95%** accuracy in predicting movie sentiment (positive or negative). This **SWEM-based** model can be used for recommender systems, fake review detection, and public opinion tracking.

Work Experience

Insurance Samadhan Ltd

Fullstack Developer

September 2022 – April 2023

Delhi, India

- Increased customer engagement by 30%** by creating **Chatbot** flows on [Whatsapp](#) and [Main site](#). Integrated bot with company's systems using **REST APIs** in **Node.js** to enable seamless data sharing and complaint collection.
- Ensured smooth operation of critical backend systems by **resolving API and performance issues**, performing regular maintenance via **shell scripting**, and ensuring MongoDB integrity by **data validation/error handling**.

Hudle Ltd

Fullstack Developer

November 2021 – July 2022

Delhi, India

- Developed **Recurring Games**, a Google Calendar-like recurring event feature, for the debut of **Groups & Games** in Hudle App. Used Cron jobs, **MySQL** database, **NestJS** backend and **AWS Lambda** for efficient **Game scheduling**
- Introduced **WhatsApp-like features** in Groups & Games, including **Pin**, **Mute**, and **Star** conversations. Employed **MySQL** database and **Redis** caches for seamless implementation.

JMoon Technologies Ltd

Machine Learning Intern

February 2021 – April 2021

Delhi, India

- Built backend for company's **Investment decision-making** app smarterangel.com using **Flask**, a Python framework and **MongoDB** database. **Integrated** the price prediction model with backend for running model on **API queries**.
- Automated model training** tasks for the price prediction ML model using time scheduling libraries in Python and improved their performance using **Keras**.

Technical Skills

Languages: C++, Python, Octave, Javascript, Linux

Artificial Intelligence: Tensorflow, Pytorch, OpenCV, NumPy, Pandas, OpenAIGym, Scikit-learn

Web Technologies: REST APIs, Flask, NodeJS, Git, MySQL, Bash

Achievements

- Received **Tensorflow Certification** for Deep Learning in the year 2024.
- Solved over **350+** problems on [Leetcode](#), [GeeksForGeeks](#), [Hackerrank](#).
- Rated **6 star** in problem solving on [Hackerrank](#).