Harsh Raj

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Professional Summary

Versatile Machine Learning Engineer and Full Stack Developer skilled in designing and deploying AI-powered web solutions. Delivered deep learning systems with 40% performance gains. Proficient in Python, TensorFlow, React, and AWS, with accomplishments spanning open-source contributions, hackathons, and production-grade builds.

EDUCATION

VIT Bhopal University

B. Tech in Computer Science and Engineering

Bhopal, India CGPA: 8.57/10

TECHNICAL SKILLS

 ${\bf Languages:\ Python,\ C++,\ Java,\ JavaScript,\ HTML,\ CSS,\ SQL}$

Frameworks & Libraries: React.js, Next.js, Node.js, Express, TensorFlow, Scikit-learn, OpenCV, Tailwind CSS, Syncfusion

Tools & Platforms: Git, Docker, AWS, MongoDB, Postman, Figma, ETL Pipelines, GitHub, Google Colab

Concepts: Machine Learning, CNNs, MLPs, REST APIs, Agile, Version Control

Professional Experience

UI/UX Designer

January 2023 – June 2023

 $VroomVerse,\ Remote$

- Crafted and deployed a responsive UI with Figma and Tailwind CSS, reducing page load times by 20%.
- Refined user interaction flows and improved visual hierarchy, elevating engagement by 15%.

Open-Source Contributor

May 2023 - July 2023

July 2024 - August 2024

Social Summer of Code, Remote

- Collaborated with 8000+ developers on open-source projects hosted on GitHub during SSOC.
- Merged 4 pull requests by refactoring code, fixing issues, and integrating new features.
- Revamped contributor onboarding guides, increasing repository engagement by 25%.

Data Intern

Visuntro, Remote

- Facilitated client interactions and maintained structured reports for cross-functional stakeholders.
- Automated repetitive ETL workflows using Python and Google Sheets API, reducing manual overhead by 30%.

Projects

Multi-Modal House Price Estimation | Python, Scikit-learn, TensorFlow, OpenCV

- Architected a multimodal regression model utilizing 1500+ property listings with both textual and image data.
- Attained an R² score of 0.92 by integrating VGG16-based CNN features with structured data using MLPs.
- Applied OpenCV for feature extraction and TensorFlow pipelines for model fusion and training.

Full-Stack Social Media App | MongoDB, Express, React, Node.js

- Engineered a MERN stack platform with authentication, real-time chat, and content sharing features.
- Optimized server-side APIs and MongoDB queries, accelerating response times by 35%.

ACHIEVEMENTS

$Hackstasy\ Hackathon-SRM\ University\ (Microsoft+YouTube)$

 $April\ 2025$

- Finalist: Ranked Top 20 among 300+ participants.
- Devised a real-time traffic signal optimizer leveraging OpenCV and ML-based congestion heatmaps.
- Reduced traffic latency in simulations through intelligent signal control.

Karnataka State Police Datathon

Feb 2024

Semi-finalist: Placed among the top 6 of 250+ teams.
Delivered an AI solution that minimized congestion prediction error by 20%.

Extracurricular Activities

Core Member – Data Science Club & Dance Club

- Spearheaded over 5 technical workshops, growing participant turnout by 50%.
- Mentored juniors and coordinated inter-college technical and cultural festivals.

CERTIFICATIONS

 ${\bf Web\ Development\ Specialization}-{\bf Coursera}$

December 2023

AWS Academy Cloud Architecting - Associate Level - Ethnus

April 2025

MERN Stack Full-Stack Development Certification – Ethnus

April 2025