

Mihir Prasad

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EDUCATION

Vishwakarma Institute of Technology

B.Tech, Artificial Intelligence and Machine Learning - CGPA:8.86/10

Pune, India

Aug. 2023 – June 2026

MET Bhujbal Knowledge City

Diploma in Computer Engineering - Percentage: 92.3

Nashik, India

Aug. 2020 – July 2023

EXPERIENCE

Full Stack Developer Intern

June 2024 – Aug 2024

Herbs Magic

Remote

- Designed and deployed RESTful APIs to power product listings and cart management, ensuring seamless frontend-backend integration and real-time user interactions.
- Improved MongoDB query performance through optimized schema design, compound indexing, and aggregation pipelines for faster product retrieval and smoother checkout experiences.
- Enhanced user experience by collaborating cross-functionally to refine UI components, resolve critical bugs, and conduct end-to-end usability testing for improved interface reliability.

Freelance Web Developer

Jan 2023 – May 2023

Freelancer

- Worked on multiple websites for companies and stores to reach more audience
- Redesigned the website to create a more visually appealing, user-friendly experience.

Student Doubt Solver

Aug 2022 – Nov 2022

Vedantu

Remote

- Provided online doubt-solving support to students
- Received 450+ 5-star reviews for exceptional service

PROJECTS

Passion Belief System Analysis | Python, Hugging Face Transformers

Sept 2024 – Dec 2024

- Engineered a multi-model emotion and belief scoring framework combining transformer models with NRC emotion lexicon and zero-shot classification.
- Fine-tuned transformer models on a custom dataset mapping texts to 20 abstract concepts across 7 behavioral parameters, enabling nuanced belief profiling .
- Enabled explainable, high-dimensional emotion inference and clustering through hybrid NLP techniques, synthetic augmentation, and conceptual embeddings.

DRL-Powered Adaptive Traffic Light Management System | Python, Sumo, TraCI

Jan 2025 – March 2025

- Designed and implemented a comparative framework for traffic signal optimization, evaluating Deep Reinforcement Learning (MLP/LSTM), adaptive rule-based, and fixed-time controllers.
- Developed and trained DRL agents (PPO, RecurrentPPO) in SUMO, achieving up to [40%] reduction in vehicle wait times over traditional methods.

DeepFake Detection | Python , Librosa

Aug 2024 – Oct 2024

- Designed a lightweight, dual-path deepfake detection system combining MobileNetV2 for video frame analysis and a CNN for Mel-spectrogram-based audio classification, enabling real-time and resource-efficient deployment.
- Leveraged the ASVspoof2019 dataset to build a robust anti-spoofing model capable of detecting voice conversion and TTS attacks.

CERTIFICATIONS

IBM DevOps and Software Engineering

IBM Generative AI and LLMs: Architecture and Data Preparation

IBM Gen AI Foundational Models for NLP & Language Understanding