# Harsh Patil

## EDUCATION

### Pimpri Chinchwad College Of Engineering And Research

Pune, India

Bachelor of Technology in Computer Science Engineering — CGPA: 8.8 (Aggregate)

2021 - 2025 (Expected)

#### EXPERIENCE

Intern

May 2024 - Aug 2024

Celebal Technologies - (Data Science)

- Built and optimized machine learning models, utilizing algorithms like regression, classification, and clustering to derive actionable insights, achieving a measurable improvement in predictive accuracy.
- Conducted data analysis and visualization using Python libraries i.e. Pandas, NumPy, Matplotlib and Seaborn to uncover trends and patterns, enabling data-driven decision-making across business functions.
- Enhanced technical skills in data processing, modeling, and visualization, contributing to key projects within a fast-paced environment.

Intern Dec 2023 - Jan 2024

TXON - (Web Development)

- Designed and developed responsive web pages using HTML, CSS, and JavaScript, ensuring cross-browser compatibility and optimizing for mobile performance.
- Implemented interactive UI components and refined front-end functionality to enhance user experience, incorporating best practices in web design and accessibility.
- Collaborated on project tasks within a virtual team, meeting deadlines consistently and contributing to end-to-end web solutions aligned with project requirements.

### Projects

# Iris Liveness Detection Using Convolutional Neural Network | Python, CNN, VGG-16

- Developing a VGG-based pre-trained CNN model aimed at distinguishing between live and spoofed iris images with a high degree of accuracy.
- Actively analyzing the model's robustness against various spoofing techniques to strengthen biometric security and reduce vulnerabilities.
- Evaluating model performance through metrics like accuracy, precision, recall, and F1-score to ensure effective classification across live and spoofed iris datasets.

## FilmFinder Web Application | Python, Streamlit, Cosine Similarity

- Developed a Movie Recommendation System using content-based filtering with CountVectorizer and Cosine Similarity to generate personalized movie suggestions based on metadata like genres, keywords, cast, and crew.
- Deployed the application using Streamlit, enabling real-time movie recommendations by integrating the recommendation engine with efficient data processing and retrieval techniques.

# Smoke Detection App | Python, TensorFlow, CNN

- Developed an application that detects smoke using convolutional neural networks (CNNs) with TensorFlow and triggers a fire alarm upon detection.
- Trained models for accurate object detection in images and video streams.

# Web Development Projects | HTML, CSS, JavaScript

- Created a portfolio website, a TO-DO list application, and a calculator using HTML, CSS, and JavaScript.
- Focused on building responsive designs, implementing interactive features, and enhancing user experience across different devices.

# TECHNICAL SKILLS

Languages: C, C++, Python, Java, HTML, CSS, JavaScript.

Cloud: AWS (EC2, S3, Lambda)

Database: MySQL

Soft Skills: Problem Solving, Adaptability, Communication, Team Collaboration