

# HARSH KAREKAR

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## PROFESSIONAL SUMMARY

Electronics and Communication Engineering undergraduate with a solid foundation in AI, ML, Deep Learning and Data Science. Proficient in Python, SQL, and modern ML frameworks, with experience in applying algorithms to practical challenges. Skilled at developing ML models, with a strong drive to contribute as an AI/ML professional.

## EDUCATION

|   |                                       |
|---|---------------------------------------|
| <b>Vellore Institute of Technology, Bhopal</b><br><i>B.Tech in Electronics and Communications Engineering</i> | Nov 2022 – May 2026<br><b>8.18/10</b> |
| <b>Blossom Public School, Pune</b><br><i>Class XII</i>  | 2022<br><b>71%</b>                    |
| <b>Blossom Public School, Pune</b><br><i>Class X</i>  | 2020<br><b>92.6%</b>                  |

## TECHNICAL SKILLS

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| <b>Languages :</b> Java, Python, SQL   |
| <b>Libraries and Frameworks :</b> NumPy, Pandas, Matplotlib, Scikit-Learn, Seaborn, TensorFlow, Keras, PyTorch |
| <b>Big Data &amp; Cloud :</b> Git, Docker  |

## TECHNICAL PROJECTS

|   |                        |
|---|------------------------|
| <b>FraudShield – Hybrid Credit Card Fraud Detection System</b>  | April 2024 – July 2024 |
| <ul style="list-style-type: none"><li>Developed a hybrid fraud detection model using XGBoost (supervised) and Autoencoder (unsupervised) architectures to identify fraudulent credit card transactions with high precision.</li><li>Designed a hybrid risk scoring algorithm combining classification probability and anomaly reconstruction error to improve detection performance on highly imbalanced datasets.</li><li>Deployed an interactive Streamlit web application with integrated SHAP explainability for real-time fraud prediction, visualization, and model interpretability.</li></ul> |                        |
| <b>Multi-modal Mental Health Detector</b>   | Jan 2025 – April 2025  |
| <ul style="list-style-type: none"><li>Built a Multi-Modal Deep Learning Model to detect stress, anxiety, and depression by analyzing user text, voice and facial expressions.</li><li>Implemented NLP pipelines using DistilBERT for textual emotion classification.</li><li>Extracted MFCC features from audio and trained CNN/RNN architectures for vocal tone analysis.</li><li>Applied early and late fusion techniques to combine modalities, achieving improved classification accuracy.</li></ul>  |                        |

## CERTIFICATIONS

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|---|-----------|
| <b>OCI 2025 Certified Generative AI Professional – <a href="#">Oracle</a></b> | Oct 2025  |
| <b>IBM Data Science Professional – <a href="#">Coursera</a></b>               | July 2025 |
| <b>Gen Ai using Watsonx – <a href="#">IBM Adroit</a></b>                      | Jan 2025  |
| <b>Artificial Intelligence Fundamentals – <a href="#">IBM Skillsbuild</a></b> | Oct 2024  |

## EXTRA CURRICULAR

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|---|-----------------------|
| <b>Technical Team Representative - Linux Club, VIT Bhopal</b>   | Feb 2024 – April 2024 |
| <ul style="list-style-type: none"><li>Represented the technical team in organizing a competitive CTF event focused on Linux fundamentals, Terminal navigation, and cyber security challenges and managing event infrastructure for 150+ participants.</li></ul> |                       |
| <b>Event Management Lead - Matrix, The Multimedia Club, VIT Bhopal</b>  | Jan 2025 – June 2025  |
| <ul style="list-style-type: none"><li>Led the planning and execution of 2 major college-level multimedia events, managing 500+ participants and coordinating with 40+ cross-functional team members for smooth event operations.</li></ul>                      |                       |