RUSHI KHELAGE

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Summary

Passionate about technology with strong foundation in machine learning, natural language processing, and generative AI. Experienced in building real-world projects using Python and Java, with focus on practical problem-solving. Known for strong data visualization and explaining skills, along with quick learning ability and keen interest in turning complex ideas into clear, impactful solutions.

Education

Bachelor of Engineering - Artificial Intelligence and Data Science — Dr. D. Y. Patil Institute of Technology, Pune — Expected:
2026 Aggregate CGPA: 7.39 — 10th: 89.20% — 12th: 53.00% — MHT-CET: 92.51

Skills

Programming Languages : Java, Python

Data Analytics : Pandas, NumPy, Matplotlib, Seaborn, Predictive Modeling

Machine Learning : Regression, Classification, Clustering, Model Evaluation

Generative AI : Transformers (BERT), GANs, Diffusion Models

Data Science : Statistical Analysis, Feature Engineering, Data Mining

Big Data : Data Processing, ETL Pipelines, Distributed Com- puting

Frontend & Visualization: Streamlit, Power BI

Databases: MySQL

Artificial Intelligence: NLP, AI Optimization, ANN

Tools & IDEs: Visual Studio Code, Eclipse

Cloud Platforms : AWS, Render

Pro jects

1. Image Super-Resolution using GANs

- Developed image super-resolution model using SRGAN in PyTorch with adversarial training for high-quality outputs
- Trained custom Generator and Discriminator networks with optimized loss functions and advanced image processing
- Achieved superior perceptual quality metrics compared to traditional upsampling methods
- Implemented comprehensive data preprocessing and model evaluation techniques

2. AI-Generated Image Detector

- Developed end-to-end deep learning pipeline with PyTorch to distinguish real and AI-generated images
- Engineered three model architectures (CNN, Vision Transformer, Hybrid CNN-ViT) with comprehensive data augmentation
- Achieved high classification accuracy with transfer learning and fine-tuning strategies
- Showcased proficiency in modern deep learning architectures and model development lifecycle

3. Sarcasm Classifier using BERT

- Developed sarcasm detection system using pre-trained BERT with Flask-based UI for real-time prediction
- Implemented comprehensive text preprocessing, tokenization pipeline and domain-specific fine-tuning
- Achieved high accuracy in text classification and integrated seamless web interface
- Deployed production-ready model demonstrating end-to-end NLP development skills

Certifications

– Machine Learning with Python IBM (Coursera) — Issued: 2025 — Verify
– Data Analytics Certification – Godrej — Verify
– Generative AI – IBM (Coursera) — Issued: 2025 — Verify
 – Fundamentals of AI Agents Using RAG and LangChain – IBM (Coursera) — Issued: 2025 — Verify
– Foundations: Data, Data, Everywhere
 – Google (Coursera) — Issued: 2025 — Verify

Extracurricular Activities

– State-Level Cricket Player: Represented university at inter-state cricket tournaments
– Technical Head – Sanskriti Club: Lead the technical team for organizing the annual fest at my college
– Computer Assembly: Assembled my own computer at the age of 15, demonstrating strong technical skills
– Calisthenics Athlete: Actively practice and participate in calisthenics for fitness and strength