Hridyansh Sharma

Bhilwara, Rajasthan, India

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Professional Summary

Computer Science Engineering student specializing in Computer Vision, Deep Learning, and Image Processing with experience in PyTorch and TensorFlow. Developed 5+ production-ready systems including medical image classification achieving 85.7% accuracy, document structure analysis with 82.6% mAP for object detection and segmentation tasks. Proficient in implementing 10+ convolutional neural networks, transfer learning, image processing pipelines, and classification algorithms for real-world computer vision applications.

Education

Indian Institute of Information Technology Vadodara - Diu Campus　　　　　　　　**Aug 2022 – May 2026**
Bachelor of Technology in Computer Science and Engineering　　　　　　　　　　　　　*Diu, India*

Professional Experience

Farnodes Technology Solutions　　　　　　　　　　　　　　　　　　　　　　**May 2025 – Jul 2025**
Artificial Intelligence Engineering Intern　　　　　　　　　　　　　　　　　　　　　　*Remote*

- Developed AgentXN enterprise AI framework with 9 microservices achieving 92% task completion accuracy using Python, machine learning algorithms, and deep learning models across 50+ enterprise clients
- Engineered scalable Retrieval-Augmented Generation (RAG) architecture using LangChain framework and ChromaDB vector database, reducing AI hallucinations by 40% and processing 10,000+ queries daily
- Fine-tuned Gemma-1B large language model using custom training pipelines and prompt engineering, delivering 60% improvement in response latency under 2.5 seconds

Technical Projects

CancerVision AI | PyTorch, CNN, Transfer Learning, OpenCV | ○ Repository　　　　　　　**Jan 2025**

- Designed deep learning pipeline for histopathologic cancer detection achieving 85.7% classification accuracy and 90.8% specificity utilizing PyTorch and 3+ convolutional neural networks with 15-layer architecture
- Executed comprehensive computer vision preprocessing workflows including PCA, image augmentation, and feature extraction on 327,000+ medical images with 95% data quality improvement
- Applied transfer learning methodologies with 5+ pre-trained models to optimize performance on Camelyon benchmark dataset, reducing training time by 70%

Document Intelligence System | Detectron2, Mask R-CNN, OCR | ○ Repository　　　　　**Oct 2024**

- Achieved 82.6% mean Average Precision (mAP) on 15,000+ document images utilizing Mask R-CNN architecture for instance segmentation and layout analysis with 12+ object categories
- Constructed end-to-end computer vision pipeline integrating Detectron2 framework with image segmentation and structural element detection capabilities, processing 2,000+ images per batch
- Developed OCR processing system using Tesseract engine and spaCy framework, delivering 96.5% text extraction accuracy and 0.89 F1-score across 25+ document types

Neural Speech Synthesis Engine | PyTorch, Tacotron2, HiFi-GAN | ⚲ Live Demo　　　　　**May 2024**

- Created high-fidelity text-to-speech system leveraging PyTorch, Tacotron2, and HiFi-GAN neural architectures, achieving 4.2/5 Mean Opinion Score (MOS) with 22kHz audio quality
- Deployed interactive demonstration platform on HuggingFace Spaces featuring real-time audio synthesis with CUDA optimization, serving 1,000+ users monthly
- Built GPU-accelerated inference pipeline for seamless text-to-speech conversion with optimized performance, reducing synthesis time by 80% to 3.2 seconds per sentence

Technical Skills

- **Computer Vision:** OpenCV, Image Processing, Object Detection, Image Classification, Segmentation
- **Deep Learning:** PyTorch, TensorFlow, Convolutional Neural Networks, Transfer Learning
- **Programming:** Python, JavaScript, C++, Java, SQL
- **Tools:** Git, NumPy, Pandas, Matplotlib, scikit-learn, CUDA

Achievements & Certifications

- **NVIDIA Deep Learning Institute:** Computer Vision and Deep Learning Fundamentals with 95% assessment score [Certificate]