

DHRUVIN PATEL

Vadodara, Gujarat, India

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EDUCATION

CHARUSAT University, Anand, Gujarat, India

B. Tech in Information Technology

2020 - 2024

CGPA: 9.45/10

EXPERIENCE

Sahajanand Technologies Private Limited (STPL)

Surat, Gujarat

Python Research and Developer Intern

Dec 2024 - Present

- Engineered a system for accurate detection and analysis of rough diamond laser markings to enhance precision in diamond cutting processes
- Innovated a proprietary algorithm to detect predefined markings on rough diamond surfaces, successfully managing high reflections and irregular surfaces, improving detection rates by 80%.
- Leveraged image processing, deep learning, and machine learning technologies to integrate real-time imaging with advanced analysis techniques, resulting in a 20% reduction in processing time.

E-Infochips Private Limited

Ahmedabad, Gujarat

AI/ML Engineer

May 2023 - July 2023

- Developed and implemented a Hand Gesture Recognition software that achieved a 95% accuracy rate in identifying and interpreting various hand gestures for interactive applications.
- Utilized TensorFlow.js, Handpose, and additional libraries including React and Webcam to create and deploy the hand gesture recognition software, reducing latency by 15%.

PROJECTS

Disaster-Risk-Monitoring-Using-Satellite-Imagery

[Github](#)

- Led the development of a satellite imagery-based disaster risk monitoring system, enhancing computer vision and data processing capabilities within a machine learning workflow.
- Applied NVIDIA's DALI, TAO Toolkit, TensorRT, and Triton Inference Server to optimize and deploy deep learning models, achieving a 67% recall, 77% precision and 55% IoU.

American-Sign-Language-Model

[Github](#)

- Created an advanced American Sign Language recognition model for 24 Signs, integrating convolutional neural networks to significantly boost interpretation accuracy and streamline communication for the deaf community.
- Refined American Sign Language model in Python, using CNNs and data augmentation. Achieved 98.76% accuracy in real-time recognition tests.

Aadhaar-Card-Validation-Tool

[Github](#)

- Created an Aadhaar Card Validation Tool, employing optical character recognition (OCR) to accurately verify the authenticity and details of Aadhaar cards.
- Designed and implemented the validation tool using OCR technology, enhanced with numpy for numerical operations and PIL Library for image processing, ensuring robust performance and accuracy.

SKILLS

Languages

C, C++, Java, Python, Mojo

Database

MongoDB, SQL

Computer Science Fundamentals

Data Structures and Algorithms, OOP, Operating System, DBMS

Specialized Skills

Artificial Intelligence, Machine Learning, Deep Learning, Image Processing with Computer Vision, PowerBI

ACHIEVEMENTS AND RESPONSIBILITIES

- [Microsoft Certified: Azure AI Fundamentals](#)
- [Microsoft Certified: Azure Data Fundamentals](#)
- [Microsoft Certified: Azure Fundamentals](#)
- [NVIDIA: Getting Started with Deep Learning](#)
- [NVIDIA: Disaster Risk Monitoring Using Satellite Imagery](#)
- [TCS Campus Ambassador Certificate](#)