

Anmol Shrotriya

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Bachelor of Technology

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EDUCATION

VIT Bhopal University, Bhopal

Bachelor of Technology in Computer Science and Engineering

Minor in Artificial Intelligence and Machine Learning

2022-Present

CGPA: 8.17

Delhi Public School, Indore

12th, Central Board of Secondary Education

2021-2022

77.0%

PROJECTS

Machine Learning Model for Marketing Budget Optimization (Market Mix Modeling)

March 23

An AI-driven analytical model designed to optimize marketing budget allocation using machine learning techniques.

- **Deployed** a Python-based predictive model employing KNN and linear regression to refine marketing spend, achieving a 15% rise in return on investment during the pilot project.
- **Engineered features** and performed data cleaning (missing value imputation, outlier removal), improving model accuracy by **20%** compared to baseline statistical methods.
- **Built** automated Python pipelines to generate weekly performance visualizations (Matplotlib/Seaborn), cutting analysis time by 25% and identifying 3 underperforming channels for budget reallocation.

Tech Stack: Python, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn

AI-Powered Healthcare Management System (PRMS)

Dec 24- March 25

A secure CRUD healthcare platform for managing patient records, doctor consultations, and medicine purchases.

- **Led development** of a HIPAA-compliant patient record system (React.js + Firebase) serving 500+ users, implementing JWT authentication to reduce unauthorized access incidents by 90% and cutting login time by 40%.
- **Integrated OCR** (Tesseract.js) to digitize handwritten prescriptions, **reducing manual errors by 80%** and saving 15+ hours/week in administrative work.
- **Built a chatbot** using Gemini API to answer patient queries (300+ monthly interactions) and recommend nearby doctors via geolocation APIs.

Tech Stack: React.js, TypeScript, Python, Firebase, REST API, OCR, Gemini AI

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript

Machine Learning & AI: TensorFlow, PyTorch, Scikit-learn, KNN, CNN, NLP, Reinforcement Learning

Web Development: React.js, Node.js, TypeScript, FastAPI, HTML/CSS

Databases: MySQL, MongoDB

DevOps & Cloud: AWS, Git, GitHub, Cloudflare

Data Science & Tools: Pandas, NumPy, Matplotlib, OpenCV

Research Projects:

CNN-Based Facial Recognition System (Research Project, VIT Bhopal)

- Developed a **CNN model** achieving **95% accuracy** in facial recognition, outperforming traditional methods (SIFT/HOG) by **30%**.
- Trained on **VGGFace2/CelebA datasets** (9,000+ identities), implementing MTCNN for face detection and alignment to reduce pose/lighting errors by **25%**.
- Addressed bias via **data augmentation** (rotation, flipping) and **adversarial debiasing**, improving fairness across demographics by **15%**.
- Optimized computational efficiency using **transfer learning (ResNet-50)** and **model pruning**, reducing inference time by **40%** for edge deployment.
- Published in **5th International Conference on Artificial Intelligence** (25% similarity score, peer-reviewed).

Technologies: Python, TensorFlow, OpenCV, MTCNN, Scikit-learn, Data Augmentation

CERTIFICATES:

– **John Hopkins University:** HTML, CSS, and Javascript for Web Developers

– **Udemy:** Artificial Intelligence A-Z 2025: Agentic AI, Gen AI, and RL