# PARTH BIJAL BHARADIA

Jamnagar, Gujarat | P: +91 8780654772 | parthbbharadia@gmail.com | LinkedIn | GitHub

## EDUCATION

**VIT BHOPAL** — Bhopal
Bachelor of Technology — Expected June 2026
Major in Computer Science specialization in Health Informatics
Cumulative CGPA: 8.67

## KEY SKILLS

**Programming Languages:** Python, C++, SQL
**AIML Concepts:** Machine Learning, Deep Learning, Natural Language Processing (NLP)
**Frameworks & Libraries:** PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, OpenCV, YOLO
**Tools & Deployment:** Git, Flask, Streamlit, VS Code, PyCharm, Jupyter Notebook, Google Colab

## PROJECTS

**CAR DAMAGE DETECTION USING DEEP LEARNING** Link — **April 2025**
[Python / PyTorch / Fine-tuned ResNet50]

- Developed a deep learning-powered Streamlit web app using a fine-tuned ResNet50 model in PyTorch to classify car damage types with 92% accuracy on front and rear damage images.
- Implemented transfer learning by fine-tuning a pre-trained ResNet50 model, strategically modifying the final fully connected layer with dropout and unfreezing specific layers to adapt the architecture for the niche classification task.
- Addressed model overfitting by implementing a comprehensive data augmentation pipeline (random rotations, flips, brightness adjustments) in PyTorch, which improved generalization and boosted validation accuracy by 15%.

**CREDX – CREDIT RISK MODELING** Link | Live Deployment — **January 2025**
[Python / Scikit-learn / Streamlit]

- Deployed CredX, a Streamlit-based credit risk assessment app using a logistic regression model trained on borrower demographics, loan details, and credit history features to predict default probability with 85% accuracy.
- Implemented a comprehensive scoring system that generates credit scores (300–900) and assigns risk ratings ('Poor' to 'Excellent') for personalized borrower evaluation and improved lending decisions.

**GHOSTBOARD: AI VIRTUAL KEYBOARD USING HAND GESTURES** Link — **September 2024**
[Python / OpenCV / MediaPipe]

- Built a real-time gesture-based virtual keyboard using Python, OpenCV, MediaPipe, and cvzone, achieving 95% gesture recognition accuracy and enabling touchless typing via webcam-based hand tracking.
- Integrated pynput library to simulate keyboard inputs, enabling the virtual keyboard to type detected alphabets directly into applications like Notepad.

**EXPENSE TRACKING AND VISUALIZATION SYSTEM** Link — **June 2024**
[Python / MySQL / Fast API]

- Engineered a modular expense management system combining Fast API backend and Streamlit frontend for efficient user experience.
- Leveraged Python data analysis tools to detect spending anomalies, generate visual insights through charts, and provide personalized budget predictions with 85% accuracy based on user history.

## CERTIFICATIONS

- Supervised Machine Learning: Regression and Classification – Deep Learning.AI, Stanford University
- Python for Computer Vision with OpenCV and Deep Learning – Udemy
- IBM Machine Learning Professional Certificate – IBM (in progress)

## ACHIEVEMENTS

- Secured All India Rank 252 in the National Defense Academy (NDA) written examination, demonstrating strong aptitude, discipline, and national-level competitive excellence.
- Achieved 5-star ratings in C++ and Python on the HackerRank platform, demonstrating strong programming skills.
- Led a 10-member team to organize and execute 'GlamVIT', a flagship fashion event, while also serving as the lead anchor for an audience of over 200 attendees.