MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Ketan Barkade
BTech Computer Engineering 2026
Date of Birth: 12/03/2004

Education

MPSTME, NMIMS University **2022 - 2026**
Bachelor of Technology in Computer Engineering
CGPA:3.34/4.0

Vidyanidhi Jr College of Science **2020 - 2022**
HSC: 67

Ryan International School **2020**
ICSE: 85

Projects

-Capstone Project - CardioAssist AI Multi-Modal Decision Support System | Ongoing
Developing a multi-task machine learning model to assist in critical care decision-making. The system vectorizes patient vitals and clinical notes into separate feature spaces, combines them into a unified representation, and trains predictive models for patient outcome forecasting. Applied SHAP for explainability to ensure model transparency and aid healthcare professionals in understanding feature importance.

-Smart Personal Finance Manager | *Python*, *Flask*, *scikit-learn*, *Postman* 2025
Uses Machine Learning to analyze expenses, compare them with budgets, and provide personalized suggestions for better financial planning. Built a Flask backend API, tested with Postman for file uploads and route validation. Processed CSV inputs of expenses and budgets using Pandas & Scikit-Learn, outputting structured JSON summaries. The app performs category-wise budget analysis, generates overall spending summaries, and offers actionable suggestions for optimization.

-Consistency Tracker| *Python*, *FastAPI*, *Streamlit*, *scikit-learn*, *XGBoost*, *SHAP* 2025
Built a full-stack web application to track daily habits and predict productivity scores using Machine Learning. Developed a FastAPI backend for model inference and analytics, and a Streamlit frontend for interactive dashboards and calendar visualizations. Processed habit-tracking datasets (CSV/Excel) with Pandas & NumPy, generating productivity predictions, weekly trends, streak analysis, and SHAP-based feature explanations. Deployed on Docker + Render, enabling real-time file uploads, insights, and personalized consistency tracking.

Internships

L&T Precision Engineering Systems (May 25 – July 25)
Junction Box Component Detection System | *Computer Vision*, *Python*, *Streamlit*
Developed a computer vision pipeline to automate detection, classification, and counting of internal components in industrial junction boxes. Replaced manual inspection by implementing template matching, contour detection, Non-Maximum Suppression, and IoU filtering to identify 40–50 visually similar parts per box. Built a Streamlit-based UI to display bounding boxes, part counts, and dynamic summary tables. Achieved near-100% accuracy under ideal conditions, significantly reducing inspection time and enhancing traceability and operational efficiency.

Certifications

-Databases and SQL for Data Science with Python (IBM) – Coursera (2025)
-Advanced Data Visualization with Tableau – Coursera (2025)
-Data Visualization with Tableau – Coursera (2025)
-Machine Learning Specialization (IBM) – Coursera (2024)

CORE SKILLS

-Programming & Data Handling: Python, SQL, Pandas, NumPy, Data Cleaning & Transformation, CSV, Excel, API Development & Integration, Git/GitHub, Modular Design, Technical Documentation
- Data Science & Analytics: Supervised & Unsupervised Learning, Model Development & Evaluation, Statistical Analysis, Data Visualization, scikit-learn, XGBoost, SHAP, Tableau, Computer Vision (Template Matching, Contour Detection, NMS, IoU), Big Data Basics (Hadoop)
- Deployment & Tools: FastAPI, Flask, Streamlit, Docker, Render, Postman, Jupyter Notebook, VS Code
- Soft Skills: Leadership & Team Management, Strategic Thinking, Communication & Collaboration, Adaptability, Time Management, Problem Solving

Positions of Responsibility

-**Secretary**, *Analytika - Data Science Club*, MPSTME, Mumbai 2024-25
Led a team of 70+ members, looking after the operations, organizing events.
-**Rescue Volunteer**, *RESQ Charitable Trust (Animal Rescue Centre)*, Pune 2023
Assisted in emergency rescue operations, animal care, and rehabilitation.