

Komal Barhate

barhate.komal12@gmail.com

Vasai West, Maharashtra

github.com/komallbarhate

linkedin.com/in/komal-barhate

OBJECTIVE

Engineering student focused on building real-world, scalable applications using full-stack development and AI. Passionate about solving practical problems and deploying functional systems that deliver measurable impact.

EDUCATION

- **SSC (10th)** – St. Teresa Convent School, Jalgaon (2022) | 81.60%
- **HSC (12th)** – Maharashtra Junior College, Ahmednagar (2024) | 66.17%
- **Bachelor of Engineering (Pursuing)** – Computer Engineering (Data Science)
Vidyavardhini's College of Engineering and Technology, Vasai West

TECHNICAL SKILLS

Languages

Python, HTML, JavaScript,
SQL

Frameworks & Tools

Flask, Streamlit, FastAPI,
React, Node.js, Git, GitHub,
VS Code

Technologies & Concepts

Full-Stack Development,
REST APIs, ML, NLP, SQLite

PROJECTS

Digital Image Tampering Detection

github.com/komallbarhate/tamper-detect

- Detects suspicious edits in digital photos using image forensics — scores images (0–1) and highlights regions with inconsistent JPEG compression, common when areas are pasted, retouched, or re-saved.
- Generates an ELA-based heatmap overlay and a scale-gap map (two ELA passes at different JPEG strengths) to pinpoint recompression anomalies.
- Produces an auto-generated forensic brief with plain-language bullets, benign explanations, and a shareable case signature.
- Supports per-run SQLite scan history, CLI-based analysis, and an optional FastAPI endpoint for external integrations.
- Deployed live on Streamlit Community Cloud; tech: Python, NumPy, Pillow, OpenCV, FastAPI, SQLite, Streamlit.

NetMon - Real-Time Network Monitoring System

github.com/komallbarhate/network-monitoring

- Built a real-time network monitoring tool using Python and Flask that captures live traffic, analyzes packets for anomalies, and displays metrics on a dynamic web dashboard.
- Integrated ML-based anomaly detection (scikit-learn) alongside rule-based logic to flag suspicious network activities.
- Live dashboard powered by Socket.IO for real-time updates with a professional light-themed interface and micro-animations.
- Role-based access control with Admin and Viewer roles using Flask-Login and Flask-SQLAlchemy.
- Tech stack: Python, Flask, Flask-SocketIO, Scapy, pandas, NumPy, scikit-learn, HTML/CSS/JS.

Sci-Fi Vitals Anomaly Detection

github.com/komallbarhate/scifi-vitals-anomaly-detection

- ML pipeline for ICU vital-sign anomaly detection built for a hackathon challenge.
- Reads vital-sign time series, engineers anomaly-focused features, runs a detection model, and produces a submission file (case_id, time_sec, anomaly_score).
- Modular architecture: separate modules for feature engineering, modeling, pipeline orchestration, and end-to-end smoke testing.
- Tech stack: Python, pandas, NumPy, scikit-learn.

Inkwell - Full-Stack Blogging Platform

inkwelllll.lovable.app

- Modern, full-stack blog platform where writers can publish posts and readers can discover stories; built with a focus on clean typography and a distraction-free editorial experience.
- Features include a post editor, public feed, user profiles with customizable bio, personal dashboard for post management, and Google + email/password authentication.
- Secured with row-level security — users can only modify their own data while published posts remain publicly accessible.
- Tech stack: React 19, TanStack Start (SSR), Vite 7, Tailwind CSS v4, shadcn/ui, Lovable Cloud (managed Postgres + Auth), Google OAuth.

NovaMind - AI Chatbot

github.com/komallbarhate/novamind-chatbot

- Built an AI-powered chatbot application with a conversational interface for natural language interaction.
- Integrated with large language model APIs to enable context-aware, multi-turn conversations.
- Designed a clean, responsive frontend UI with real-time message rendering and conversation history.
- Tech stack: Python, React, REST APIs, LLM integration.

Trading Bot - Automated Trading System

github.com/komallbarhate/trading_bot

- Developed an automated trading bot that executes buy/sell decisions based on market indicators and configurable strategies.
- Implemented technical analysis features including moving averages, RSI, and signal generation for trade entry and exit points.
- Built backtesting module to evaluate strategy performance against historical market data.
- Tech stack: Python, pandas, NumPy, trading APIs.

EXPERIENCE

AI Intern - JYESTA CORPORATE ENTITY

10 Feb 2026 – 12 Apr 2026

- Worked on AI-based projects and contributed to the development of intelligent systems and solutions.
- Gained hands-on experience with artificial intelligence tools, techniques, and workflows in a corporate environment.

Web Development Intern - Prodigy InfoTech

15 Apr 2026 – 15 May 2026

Certificate: <https://prodigyinfotech.dev/verify?cin=PT/APR26/10015>

- Designed and developed responsive, user-friendly websites using HTML, CSS, and JavaScript.
- Built dynamic web applications and gained hands-on experience with modern web development tools and frameworks.
- Worked on frontend web development tasks including webpage design, responsiveness, and functionality enhancement.
- Understood the complete web development lifecycle — planning, designing, coding, testing, and deployment.

CO-CURRICULAR ACTIVITIES

Sub Admin Head - Literati Club

VCET, Vasai West

- Managed documentation, official reports, and event registrations.
- Drafted official communications and administrative documents for the club.
- Coordinated event workflows and operations across teams.

INTERESTS

Listening music, playing outdoor sports, gaming, mobile games

PERSONAL DETAILS

Gender: Male

Date of Birth: 14 January 2006

Current Address: ALPA CHSL B Wing 105, Shastri Nagar, Vasai West, Maharashtra, India - 401202

Marital Status: Single

Known Languages: English, Marathi, Hindi

Permanent Address: Plot No. 44, Amrut Ravindra Nagar, Mohadi Road, Jalgaon, Maharashtra, India - 425001