

KEDAR DAMALE

Thane, MH, India • +91 7058533020 • damalekedar@gmail.com • Portfolio Website • GitHub • LinkedIn

SUMMARY

Applied Data Scientist with 1.5 years of experience building end-to-end AI/ML solutions across fintech, financial automation, pharma, and medical research. Experienced in machine learning, Generative AI, multi-agent systems, and data pipeline development, with a focus on translating research and experimentation into deployable, production-grade applications.

SKILLS

Programming and Data: Python, SQL, Pydantic, Databricks, DuckDB, NumPy, Pandas, Polars

Machine Learning: NLP, Scikit-learn, XGBoost, Feature Engineering, Cross-Validation, Model Evaluation, Hyperparameter Tuning

Deep Learning: PyTorch, YOLO, Transfer Learning, Model Training and Evaluation

Generative AI: LangChain, LangGraph, RAG, Multi-Agent Systems, Tool Calling, MCP, Human-in-the-Loop (HITL)

Data Engineering and MLOps: ETL/ELT Pipelines, MLflow, FastAPI, Docker, AWS, CI/CD, Git/GitHub

Mathematics and Statistics: Probability and Statistics, Hypothesis Testing, Confidence Intervals, Linear Algebra, Calculus

WORK EXPERIENCE

ML and GenAI Engineer

Jan 2026 - Present

GlobalSpace Technologies Ltd.

Navi Mumbai, MH, India

Budget Automation and Incentive Calculator

- Replaced a per-employee XGBoost modeling approach with a unified, hierarchy-aware target allocation system designed to scale from 20-30 employees to thousands of MRs. The solution is under review by pharmaceutical companies including Himalaya and Zydus.
- Built a top-down budgeting workflow that allocates targets based on historical performance and capacity, supports time-bound revision requests, reconciles conflicting requests, and routes proposed changes for managerial approval.
- Developed a DAG-based incentive calculation engine with an AI agent that converts policy PDFs into executable logic at runtime and explains employee-level incentive outcomes, enabling business users to update incentive policies without specialist admin support.

PatGPT

- Rebuilt a pharmaceutical sales analytics platform around an agentic architecture for multi-step forecasting, simulation, prediction, and historical analysis across **3M+** sales and tender records.
- Implemented human-in-the-loop review checkpoints and evidence-grounded responses to support verifiable, multi-step commercial analysis and recommendations.
- Added streamed responses, safe retry handling, and checksum-verified data promotion and rollback. The platform is now used at Zydus.

Automation Developer

May 2025 - Jan 2026

Propelligence Advisors Pvt. Ltd.

Thane, MH, India

- Automated purchase-register to GSTR-2B invoice reconciliation, addressing inconsistent vendor names, invoice identifiers, and date formats that made exact-match approaches unreliable.
- Engineered a large-file reconciliation pipeline using fuzzy matching, match threshold, date/value tolerances, Polars processing, and constant-memory report generation.
- Processed **10,000+** invoice entries in **12 seconds** versus 5-6 days manually, reducing processing time by over **99.996%**. Achieved **100%** precision with no false positives till this date. Integrated the module into an audit suite adopted by two CA firms and approximately 20 auditors.

PROJECTS

1. Chessablanka: Chess Position Analyzer

[GitHub Link](#)

- Built a computer-vision tool that converts chessboard photos into playable positions, eliminating manual board transcription for chess analysis and college competition preparation.
- Trained a custom YOLOv8 model using an augmented dataset of 1,700+ images to detect chess pieces and reconstruct board positions from photos.
- Achieved **98.57%** detection accuracy across 500+ test images and integrated Stockfish for position evaluation and best-move recommendations; used by the college IT chess team for competition preparation.

2. NeuroTRIBE: Brain Activity Analysis for ADHD Research

[GitHub Link](#)

- Developed a neuroimaging research pipeline to investigate differences in brain responses to movie stimuli between participants with and without ADHD.
- Automated the analysis of fMRI data using pretrained brain-activity models to identify patterns across brain regions and networks.
- Applied statistical testing with confounding-factor adjustments and generated 3D brain visualizations and reports to support research analysis.

3. CattleMO: Low-Cost Cattle Monitoring with ESP32 and DBSCAN

[GitHub Link](#)

- Designed a low-cost cattle monitoring system that reduces dependence on individual GPS trackers by estimating animal proximity through wireless signal strength.
- Led development of an ESP32-based tracking prototype with a GPS-equipped master node, wireless child nodes, and a live dashboard for monitoring herd movement.
- Applied DBSCAN clustering to identify grazing zones and movement patterns, with telemetry processed through Flask and MongoDB and displayed in a Next.js dashboard.

EDUCATION AND ACHIEVEMENTS

- Qualified GATE DA 2026** and graduated in IT Engineering with an 8.5 CGPA from Mumbai University.
- Published an automation suite for CA and audit firms, adopted by two CA firms and used by approximately 20 auditors.