Samarth Suresh Ghare

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SUMMARY

B.Tech AI student (CGPA **7.79**) specializing in end-to-end ML engineering across computer vision, time-series forecasting, NLP, and recommendation systems. Delivered **8 production-grade ML projects** at UniConverge Technologies with quantified model performance. Proficient in Python, TensorFlow, PyTorch, scikit-learn, YOLOv5, and MLflow. Backed by **12+ certifications** in AI/ML. Seeking a Machine Learning Engineer role.

EDUCATION

Nutan College of Engineering & Research (DBATU) — Pune, Maharashtra
B.Tech – Computer Science Engineering (Artificial Intelligence) | CGPA: 7.79 — *Sept 2023 – Sept 2027*
- Relevant Coursework: Machine Learning, Deep Learning, Data Structures & Algorithms, Database Management Systems, OOP, Computer Networks, Operating Systems, Linear Algebra, Probability & Statistics

Class XII – Maharashtra State Board — Maharashtra
Percentage: 78.17% | Subjects: Physics, Chemistry, Mathematics, Biology, English — 2021

Class X – Maharashtra State Board — Maharashtra
Percentage: 80.40% | Maharashtra SSC Board — 2019

CORE COMPETENCIES

Math: Linear Algebra, Probability & Statistics, Calculus, Optimization, Algorithmic Complexity   **ML:** Supervised/Unsupervised, Deep Learning, Transfer Learning, A/B Testing

Domains: Computer Vision, NLP, Time-Series Forecasting, Predictive Maintenance, Recommendation Systems, Anomaly Detection

EXPERIENCE

Machine Learning Intern — June 2025 – August 2025
UniConverge Technologies Pvt. Ltd. — *Pune, Maharashtra*
- **Crop & Weed Detection (YOLOv5):** Trained custom YOLOv5 on **5,000+ annotated images** with augmentation pipeline; achieved **mAP@0.5 = 88%** for precision agriculture weed localization.
- **Turbofan RUL Prediction (LSTM):** Multivariate LSTM on NASA C-MAPSS (**21 sensors, 80K+ cycles**); reduced RUL prediction RMSE by **18%** over baseline via rolling-window feature engineering.
- **Gearbox & Bearing Fault Detection:** Engineered **30+ vibration features** (time/frequency domain) across 4 load conditions; SVM/RF classifiers achieved **94% fault classification accuracy**.
- **Yield, Traffic & Mining Predictions:** Delivered XGBoost/Prophet models on **13 years of agricultural data** and flotation sensor streams; reduced silica prediction error by **12%** vs. baseline.

PERSONAL PROJECTS

AI Fashion Recommendation System | *PyTorch, ResNet50, Transfer Learning, FAISS, Flask* — 2025
- Fine-tuned ResNet50 (PyTorch) on **44K+ fashion images**; built FAISS index on 2048-dim embeddings for **sub-10ms** similarity search; deployed as Flask app with real-time style recommendations.

End-to-End MLOps Pipeline | *PyTorch, MLflow, Docker, GitHub Actions, scikit-learn* — 2025
- Built end-to-end MLOps pipeline: **MLflow** experiment tracking, **DVC** model versioning, **Docker** containerization, **GitHub Actions** CI/CD, A/B testing, and automated model monitoring dashboard.

AI-Powered Talent Recommendation Engine | *Python, NLP, TF-IDF, Sentence-BERT, Flask* — 2025
- Semantic talent-matching using TF-IDF + Sentence-BERT embeddings; **91% precision@5** on benchmark; deployed via Flask REST API for recruitment platform integration.

Movie Recommendation System | *Python, PyTorch, Collaborative Filtering, Streamlit* — 2024
- Hybrid recommender: neural collaborative filtering (PyTorch) + TF-IDF content-based on **MovieLens 100K+**; Streamlit app with **NDCG@10 = 0.74**.

TECHNICAL SKILLS

ML & Deep Learning: Python, PyTorch, TensorFlow, Keras, scikit-learn, XGBoost, YOLOv5, LSTM, SVM, Random Forest, NLP, Computer Vision, Time-Series, Transfer Learning, Feature Engineering

MLOps & Deployment: MLflow, DVC, Docker, GitHub Actions (CI/CD), Flask, REST APIs, Model Monitoring, A/B Testing, Streamlit

Data & Cloud: Pandas, NumPy, SQL, Apache Spark (basic), Google Cloud Platform (BigQuery, Vertex AI – basic), Power BI, DAX, Jupyter, Google Colab

Tools: Git, GitHub, OpenCV, FAISS, Facebook Prophet, Sentence-BERT, Linux/Bash, VS Code

CERTIFICATIONS (12+ total)

AI/ML: AI Design Challenges – VOIS (Jul'25); AI for Beginners – HP LIFE (Jul'25); Green Skills & AI – Shell/AICTE (Nov'24); ChatGPT & AI Tools – be10X (Sep'24)

Data/BI: Power BI for Data Analysis – VOIS (Jun'25); Power BI DAX & AI – VOIS (May'25); Build Dashboards – VOIS (May'25); DSA – Alison CPD; C, HTML – KnowledgeGate; Design Thinking – DBATU

ACHIEVEMENTS

- MHT-CET **83.28%** and NEET **320** (BDS seat) – both self-studied; active GitHub contributor across ML, DSA, and web projects; consistent LeetCode/HackerRank practice.
- Completed **12+ certifications** in AI, ML, and Power BI within first 2 years of B.Tech; participated in Labmentix LCAT aptitude test (Sep 2025).