

Dev Suthar
B.E. Computer Engineering
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Professional Summary

AI/ML Engineer with hands-on experience building and deploying **production-style ML systems** — from **TF-IDF/Logistic Regression** classifiers to **FastAPI** microservices containerized with **Docker** and shipped via **CI/CD** to **AWS EC2**. Skilled across the full ML lifecycle: data preprocessing, model evaluation, REST API design, and cloud deployment. Combines technical depth with **15+ months** of frontline operations experience managing accuracy-critical processes under pressure.

Technical Skills

Programming Languages: Python, SQL, JavaScript, Go
Machine Learning: Scikit-learn, TensorFlow, PyTorch, Logistic Regression, TF-IDF Vectorization, Text Classification, Model Evaluation
Data Science: NumPy, Pandas, Matplotlib, Seaborn
Backend Development: FastAPI, REST APIs, Pydantic
Databases: SQLite
DevOps & Cloud: Docker, Docker Hub, GitHub Actions (CI/CD), AWS EC2, Linux, Git, GitHub
Mathematics for ML: Linear Algebra, Probability, Statistics

Projects

AI-Powered Customer Support Ticket Prioritization System | *Independent Project*

Python, FastAPI, Scikit-learn, Docker, AWS EC2, GitHub Actions

- Built and deployed a production-style ML system achieving **84% classification accuracy** on unseen test data, with **100% precision on high-priority tickets** — ensuring zero false urgent alerts—using **TF-IDF + Logistic Regression** trained on **170+ labelled support tickets.**
- Designed **REST API** with **FastAPI (7+ endpoints),** including confidence scoring and human-review flagging for low-confidence predictions.
- Containerized with **Docker** and deployed to **AWS EC2** via a fully automated **GitHub Actions CI/CD** pipeline (push → build → Docker Hub → EC2 deploy).

Sentiment Analysis | *Independent Project*

Python, Scikit-learn, NLTK, TF-IDF, FastAPI, Docker

- **Built and deployed a text sentiment classification API**, comparing **Bernoulli Naive Bayes** and **Logistic Regression** on the **Sentiment140 dataset** (1.6M tweets, 40K balanced training subset), with **Logistic Regression** selected for production at **76.60% accuracy** and **0.840 ROC-AUC.**
- Engineered an **NLP preprocessing pipeline** (stopword/URL/punctuation removal, tokenization, stemming, and lemmatization) shared between training and inference and vectorized text using **TF-IDF** (unigrams + bigrams, 500K max features).
- Evaluated models using **confusion matrix** and **ROC curve analysis**, then deployed the selected model as a **REST API** with **FastAPI**, containerized with **Docker**, and published to **Docker Hub** for **AWS EC2** deployment.

Credit Risk Classification And Deployment Engine | *Independent Project*

Python, Scikit-learn, Pandas, NumPy, Matplotlib/Seaborn

- **Engineered a credit risk classification engine**, benchmarking **5 algorithms** (Random Forest, Gaussian Naive Bayes, Decision Tree, KNN, and SVC) on applicant financial and demographic data, with **Gaussian Naive Bayes and SVC** both achieving **83.12% validation accuracy**.
- Built a **modular preprocessing pipeline** handling **categorical encoding**, **feature scaling**, and **train/test**

splitting on income, credit history, and property-area features; **serialised** the selected model for **production inference**.

- **Deployed** the classification engine as a **REST API** using **FastAPI** with **Pydantic** request validation, **containerized with Docker**, and hosted on **AWS EC2** for **real-time credit risk decisions**.
- Designed the system with **production considerations** in mind, structuring the codebase for future extensions, including **model explainability (SHAP)**, **CI/CD automation**, and **container orchestration**.

Work Experience

Sport Leader | *Decathlon Sports India* *(Dec 2023 – March 2025)*

- **Managed customer issues** and resolved service requests efficiently, contributing to **improved customer satisfaction**.
- Maintained accurate **cash reconciliation** and **inventory records** with **99% accuracy**.
- **Trained and onboarded** new team members on **POS systems**, store procedures, and customer service standards.
- Provided **first-line IT support** by troubleshooting **POS systems, printers, network connectivity,** and other in-store technical issues to minimize **operational downtime**.

Store Cashier & Customer Service | *Max Fashion India* *(Sep 2023 – Dec 2023)*

- **Processed 100+ customer transactions daily** while delivering efficient and professional customer service.
- Managed **cash handling** and **end-of-day reconciliation** with **100% accuracy.**

Education

Shree Swaminarayan Institute of Technology *(2023 – 2027)*

- B.E. in Computer Engineering

Puna International School *(2021 – 2023)*

- Higher Secondary Education

Certifications

- Machine Learning: From Data to Decisions — MIT Professional Education
- CS50's Introduction to Artificial Intelligence with Python — Harvard University
- Effective MLOps – Model Development — Weights & Biases
- CI/CD for Machine Learning (GitOps) — Weights & Biases
- Data Science Mentorship Program (DSMP) 2.0 — CampusX
- Introduction to Model Context Protocol — Anthropic
- Intermediate Machine Learning — Kaggle
- AI Fundamentals: Language and Vision in AI — IBM
- Claude with the Anthropic API — Anthropic

Soft Skills

Time Management, Accuracy & Consistency, Attention to Detail, Teamwork, Decision-Making, Operations Management, Money Management, Team Leadership, Discrepancy Resolution, Problem-Solving, Presentations, Leadership, Communication