Kishan Sheladiya

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Innovative and results-driven **Machine Learning Developer with over 1.5 years of experience** in designing, developing, and deploying ML and AI applications. Skilled in AI automation, deep learning, data analytics, and predictive modeling, with strong expertise in translating complex business or research requirements into efficient, production-ready solutions using Python.

EDUCATION

OCT 2022-Present **Master of Mathematical Modelling, Simulation and Optimization**
Universität Koblenz, Germany.

- Machine Learning and Data mining, Artificial Intelligence, Optimization, Data Science, Big Data.

JUL 2018-MAY 2022 **B.Tech. Mechanical Engineering**
Vellore Institute of Technology, Vellore, India.

- Python, Advanced Engineering Mathematics, Statistics, Operations Research, Data Analytics.

EXPERIENCE

JAN 2022-JUN 2022 **Intern Machine Learning Developer,** Shree Ram Agriculture | Gujarat, India.

- Machine Learning **framework development**, Artificial Intelligence **Integration**, **Automation** Programming.
- Design and executed well-engineered, easy to maintain, reliable and bug free code modules for various applications.
- **Deep Learning**, Work on mathematical aspects of AI, **AWS**.

APR 2021-SEP 2021 **Data Analyst Intern** Kautilyum IT Services | Gujarat, India

- Database management, **quality assessment, Pattern and trend identification**, Spearheaded **data flow** improve.
- Converted data into actionable **insights**.
- Created data visualization modules and **Dashboards** for complex dataset using **python, Power BI**.

MASTER THESIS

Time Series Classification by Optimal Transport Method
Universität Koblenz | May 2025-Oct 2025

- Built a **GPU**-accelerated **Optimal Transport Warping (**OTW) model in Python(**PyTorch**) with **CUDA** for efficient **time-series classification**.
- Benchmarked OTW vs. **Dynamic Time Warping** (DTW) on 7 UCR datasets, achieving higher accuracy in **structurally complex domains**.
- Applied **machine learning**, **optimization**, Artificial Intelligence (AI) and **statistical techniques** to real-world data (medical, energy, traffic).
- Developed a **reproducible pipeline** for experiments and **benchmarking**, connecting **advanced mathematical methods** with real-world applications
- Delivered a **GPU-optimized Optimal Transport Warping model** achieving **up to 70× faster computation** and **60% lower classification error** than DTW.

PROJECT

Book Recommendation System Machine Learning
Personal Project | Jan 2025-Mar 2025

- **ETL, EDA, Data Augmentation** and **statistical analysis** (correlation, regression) on large-scale.
- Applied data **preprocessing, feature engineering,** and **model evaluation**.
- Hands-on experience with **Linear Regression**, **Decision Trees, K-Means,** and **Collaborative Filtering**.
- Evaluated performance using **ROC AUC, F1-score, Precision, and Recall** optimizing model accuracy.

ETL Epidemiological Data Analysis
Personal Project | Jul 2024-Sep 2024

- Data collection of Epidemiological Data using **ETL pipelines** and data scraping techniques.
- **Data preprocessing** and **Cleaning** to Ensure Data **Accuracy** and **Reliability**.
- Created an interactive dashboard using **PowerBI**, allowing users to visualize.
- Demonstrated expertise in Exploratory Data Analysis (**EDA**) Techniques to Identify **Key Trends** and **Patterns**.

Credit card fraud detection using machine learning
Personal Project | Mar 2024-Apr 2024

- Developed system to detect fraud using **imbalanced dataset**.
- **EDA** of dataset using Python and Scikit-learn and Pandas for **data manipulation**, **cleaning**, **model building** and **Visualizing** using **PowerBI**.
- Fine-tuned hyperparameters of various models such as **Logistic regression, Random forest, XGBoost,** and **Neural net- work**.
- **Evaluation matrices** such as precision, recall, F1-score and ROC AUC to evaluate model's performance.

SKILLS

Languages :	**Python, SQL, R (basics), C, C++, Java**
Frameworks :	**Numpy, Pandas, Scipy, TensorFlow, PyTorch, TensorFlow, Scikit learn, PySpark ML, FastAPI, OpenCV, CUDA, MySQL**
Machine Learning :	**Deep Learning, Natural Language Processing (NLP), Large Language Models (LLMs),Neural Networks, Model Fine-tuning, Data Preprocessing, Feature Engineering**
Data Visualization :	**Tableau, Power BI, Matplotlib, Seaborn, ggplot2, Dash, Plotly, streamlit, Quicksight**
Analysis Methods:	**Statistical analysis, statistical modeling, hypothesis testing, A/B testing, regression/classification, forecasting, trend analysis, time-series analysis, data quality management**
Cloud Computing :	**AWS (S3, EC2, Lambda, Glue), Microsoft Azure, JIRA, Confluence, Docker,**
Version Control and APIs :	**Git/GitHub, Docker, CI/CD Pipelines, REST APIs, GitHub REST API**
Utilities :	**Predictive Modelling, ETL, EDA, Optimization, Jupyter Notebook, VS Code, Linux, Ubuntu**

CERTIFICATIONS

Scalable Machine Learning with Apache Spark- databricks (2023)
Apache Spark Programming with Databricks- databricks (2023)
Microsoft Certified: Power BI Data Analyst Associate- Udemy (2023)
Python Programming Bootcamp - Udemy (2021)

LANGUAGE

English
German