

WarpDriveML

Warp Drive ML is a next-generation **AI Platform** designed for companies of all sizes. With a data-centric approach, it supports the complete lifecycle of AI projects: from data collection and analysis to predictive modeling and operational implementation. A unique, flexible, and scalable solution to maximize business value..



WarpDriveML: The AI platform that transforms data into value, accelerating business innovation.

MISSION

To provide a powerful and scalable AI platform that enables companies to transform their data into tangible value. WarpDriveML drives business growth by supporting end-to-end projects with a data-centric, results-oriented approach, ensuring continuous and sustainable innovation from data collection to operational deployment.

VISION

To become the go-to platform for companies leveraging artificial intelligence to drive growth and efficiency. WarpDriveML aspires to be an essential AI platform, capable of turning data complexity into practical and innovative solutions, fostering collaboration between business and technology.



WARPDRIVEML PLATFORM - KEY FEATURES

Full Management and Control:

Full lifecycle coverage of AI projects, with traceability and control tools to ensure compliance (EU AI Act) and transparency, from data collection to continuous monitoring.

Economics features

Monitor and optimize economic KPIs such as ROI and payback period to maximize business value.

Data-Centric AI Approach

A data-focused approach to ensure the quality and relevance of information used in decision-making processes.

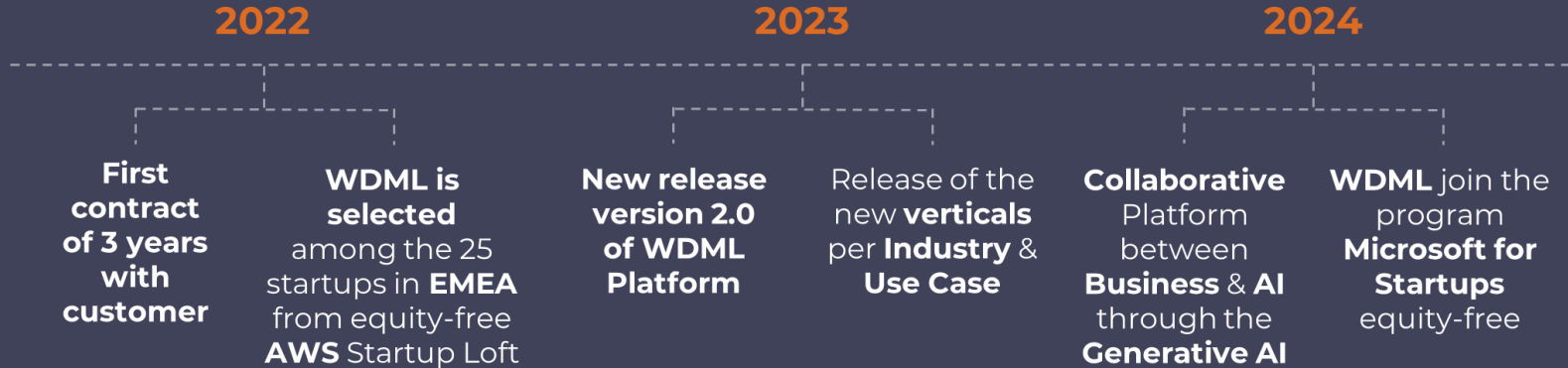
Collaboration: Business & AI

Business and AI Collaboration: Bridges business experts and data scientists to develop tailored AI solutions that meet specific client needs

PATENTED SOLUTION FOR MAXIMUM VALUE

WarpDriveML is a unique, patented platform offering innovation and reliability in the AI domain. The patent covers key data-centric AI features and advanced AI project management capabilities.

Patent N° 102021000030812 – released January 23rd 2024



CHALLENGES IN AI PROJECT MANAGEMENT

Transparency and Control

The lack of integrated tools makes it difficult to monitor the AI project lifecycle, increasing the risk of errors and uninformed decisions.

Data traceability

Without clear traceability, managing dataset versions becomes complex, leading to confusion and rollback challenges.

Audit and Compliance

The absence of centralized auditing systems complicates ensuring data and model compliance and security.



ADVANCED AI PROCESS MANAGEMENT WITH WARPDRIVEML

Transparency and Control

Complete, integrated management to monitor every phase of an AI project, ensuring transparency and control.

Dataset Versioning

Advanced version control system to track and restore data changes, reducing mistakes and mees.

Centralized Audit

Every action is traceable with WarpDriveML, facilitating compliance and ensuring a complete audit trail.



THE DATA QUALITY CHALLENGE

Data Quantity

Lack of data availability often limits the robustness of AI models.

Data relevancy

Not all collected data is useful, making it challenging to select information that adds value to the model.

Data Cleansing

Dirty or erroneous data can compromise AI results, requiring time-consuming data cleansing processes.



DATA PROFILING AND QUALITY IMPROVEMENTS WITH WARPDRIVEML

Comprehensive Data Profiling

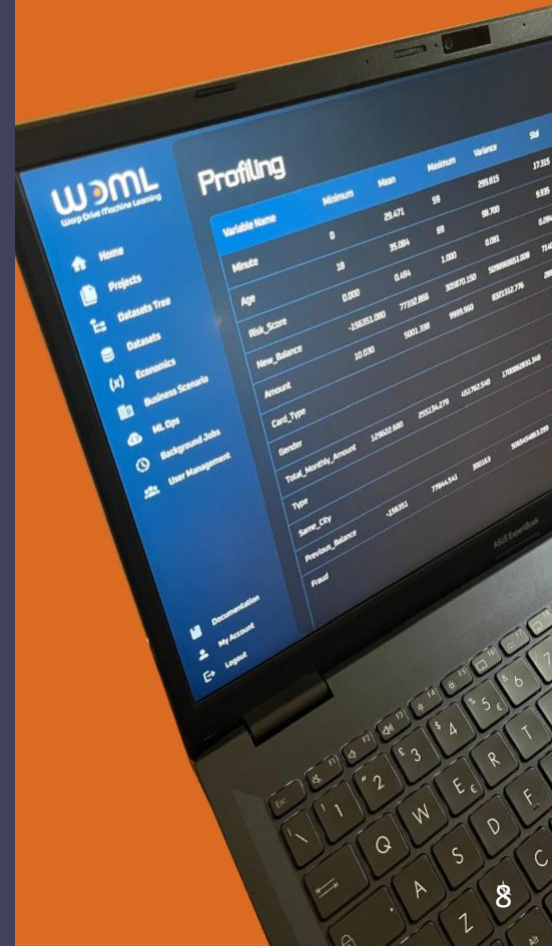
WarpDriveML Automatically analyzes data for quantity and completeness, identifying gaps.

Hints

Provides practical recommendations to enhance data quality, reducing manual effort and improving model accuracy while accelerating time-to-production.

Anomaly detection

WarpDriveML Automatically identifies data anomalies and biases, ensuring a reliable and representative data foundation



ESTIMATING COSTS AND TIMELINES

Cost uncertainty

Without clear cost estimates, AI projects risk exceeding budgets, complicating planning.

Implementation timeline

AI project durations are often underestimated, causing delays in achieving results.

Undefined ROI

The lack of reliable economic return forecasts makes it difficult to assess project utility.



ECONOMIC EVALUATION AND KPI SIMULATION WITH WARPDRIVEML

Cost & benefit analysis

WarpDriveML Provides tools to estimate project costs and expected benefits, facilitating financial planning

ROI Simulation

Simulates ROI across various scenarios, offering a clear economic impact forecast.

Payback Period Management

WarpDriveML Calculates investment recovery time, enabling better-informed decision-making.



THE CHALLENGE: BUSINESS & DATA SCIENCE COLLABORATION

Unlack of communication

A lack of shared language creates understanding gaps between business and data science teams

Not aligned Goals

Business goals and technical aspects often diverge, compromising final results.

Lack of integration

The absence of collaborative tools hinders insight and report sharing among teams.



BUSINESS AND DATA SCIENCE COLLABORATION WITH WARPDRIVEML

Shared reports

WarpDriveML Smooth the sharing of reports and insights between Business Analysts and Data Scientists, improving communication.

AI assistant

Includes an AI assistant to help teams in creation specs and use data, aligning goals through LLM-based tools.

Shared Goals

WarpDriveML : Supports a collaborative process to ensure business and technical objectives are always in sync.



WARPDRIVEML PLATFORM



WDML AI Agents to support every phase of AI Project

Platform Foundation

WDML PLATFORM TECHNICAL ADVANCED FEATURES

FEATURES	Description	Benefit
Data Maturity Assessment	Automatic data quality	Optimized resource training
SHAP Analysis	Detailed description of influential variables	Better transparency
Custom Loss Function	Economic variable optimization	Maximized ROI through the best economical model choice
Economic Simulation	Real-time KPI calculation	Shared AI Goals

CUSTOMER BENEFITS

Time reduction

Up to 90% decrease in AI project release times.

Cost Optimization

Up to 80% reduction in AI implementation costs.

ROI Increase

Up to 5x improvement in ROI compared to traditional implementations.

Vertical solution

Optimized AI solutions for specific industries.



Edge-AI in Quality Control

1 Customer need

The client needed to improve the quality control process, specifically the ability to detect sound anomalies in mechanical components during production. Previously reliant on a manual system prone to human error, they faced operational inefficiencies and missed critical minor defects.

2 Solution

We developed an AI-based system utilizing convolutional neural networks for audio data analysis from mechanical components during testing. The solution was implemented directly on the production line, leveraging Edge-AI for real-time analysis, ensuring rapid and reliable decisions.

3 Results

- ✓ Reduced false positives by over 30%, achieving 100% accuracy in critical defect detection.
- ✓ Improved operational efficiency through automation.
- ✓ Enhanced product quality with traceable real-time testing.



AI: DEMAND ADJUSTMENT - USE CASE

1 Customer need

The client needed to optimize demand planning in their sales and operations processes. Traditional algorithms “best fit” failed to consider interactions between products, limiting forecasting accuracy.

2 Solution

Built an AI system leveraging Data-Centric AI and Machine Learning to analyze all variables and characteristics across products.

Deployed a specialized platform for data analysis and model training.

3 Results

- ✓ Reduced forecasting error by 30% compared to traditional methods.
- ✓ Enhanced procurement of raw materials
- ✓ Optimized inventory management.



AI: PREDICTIVE QUALITY - USE CASE

1 Customer need

The client aimed to improve production quality in the steel industry. They lacked monitoring and predictive error capabilities for finished products..

2 Solution

Developed a solution predicting errors 10 minutes ahead, enabling automatic real-time production adjustments.

Used edge-collected data processed with a Data-Centric AI approach to maximize product quality.

3 Results

- ☑ Increased production line quality by 10-14%.
- ☑ Reduced quality verification cost.
- ☑ Improved process understanding among plant experts.



AI: PREDICTIVE MAINTENANCE - USE CASE

1 Customer need

The client aimed to enhance the maintenance process for storage devices in their data center. They lacked effective monitoring and predictive failure capabilities.

2 Solution

We developed a system capable of predicting device failure a week in advance, based on real-time variables analyzed by an AI model. Data was cleaned and processed using a Data-Centric approach to find the best threshold for minimizing maintenance costs.

3 Results

- ✔ Significant performance improvement: +22% compared to the previous system.
- ✔ Reduced device replacement costs.
- ✔ Increased average device lifetime.



AI: FRAUD DETECTION - USE CASE

1 Customer need

The client needed to enhance the online banking transaction verification process to reduce costs and improve fraud detection accuracy. The traditional system was unresponsive to new types of fraud and difficult to automate..

2 Solution

Using our AI Business platform, we developed a process that combines advanced AI systems with expert operators to reduce the workload on non-fraudulent transactions (false positives) and focus on economically significant fraud cases.

3 Results

- ✔ Achieved 99.1% recall with the AI platform for fraud detection and 68% precision.
- ✔ Delivered 99.989% accuracy for the model/platform.
- ✔ Significantly reduced anti-fraud process costs.





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