ADCAT

Automated Data Cleansing & Analysis Tool

Machine learning offers a powerful, time-efficient, and automated solution for healing data errors to ensure accurate reporting and predictions

ADCAT is a single, standardized capability for enterprise-wide data cleansing and human-in-the loop recommendations. ADCAT cleanses data proactively at the point of entry, during data migrations, or in preparation for downstream analytics. Error-free data enables descriptive, predictive, and prescriptive analyses for more accurate insights, eased data migration, and improved data-driven decision making.

Let us help streamline your data quality pipelines

- Higher-confidence decision making due to higher quality data
- Timely, accurate, and complete data can provide an edge over global adversaries
- Proactive cleansing at point of data entry or backend cleansing
- Improved analyst productivity on their core mission by spending less time correcting data

Features

- Robust
- Holistic
- Extensible
- Flexible
- Trustworthy
- Transparent

ADCAT comprises four components with customizable subcomponents

Data Quality Engine

Data profiling and error detection via business rule comparison and outlier analysis

Transformation Pipeline

Suite of methodologies to ready data for machine learning error correction methods

Prediction & Explanation Engine

Automatically heal data or provide correction recommendations with explanations

Model Quality Modeling

Model quality trending and automatic alerting for model retraining

ADCAT Python Package

Cleansing. Machine learning approaches such as natural language processing, classification algorithms, and probabilistic graphical modeling to cleanse data errors in an automated, time-efficient manner.

ADCAT Application

Results. User interface and needed data connections to enable end users to review ADCAT data cleansing results without needing to work directly with Python scripts.

ILLUMINATION WORKS

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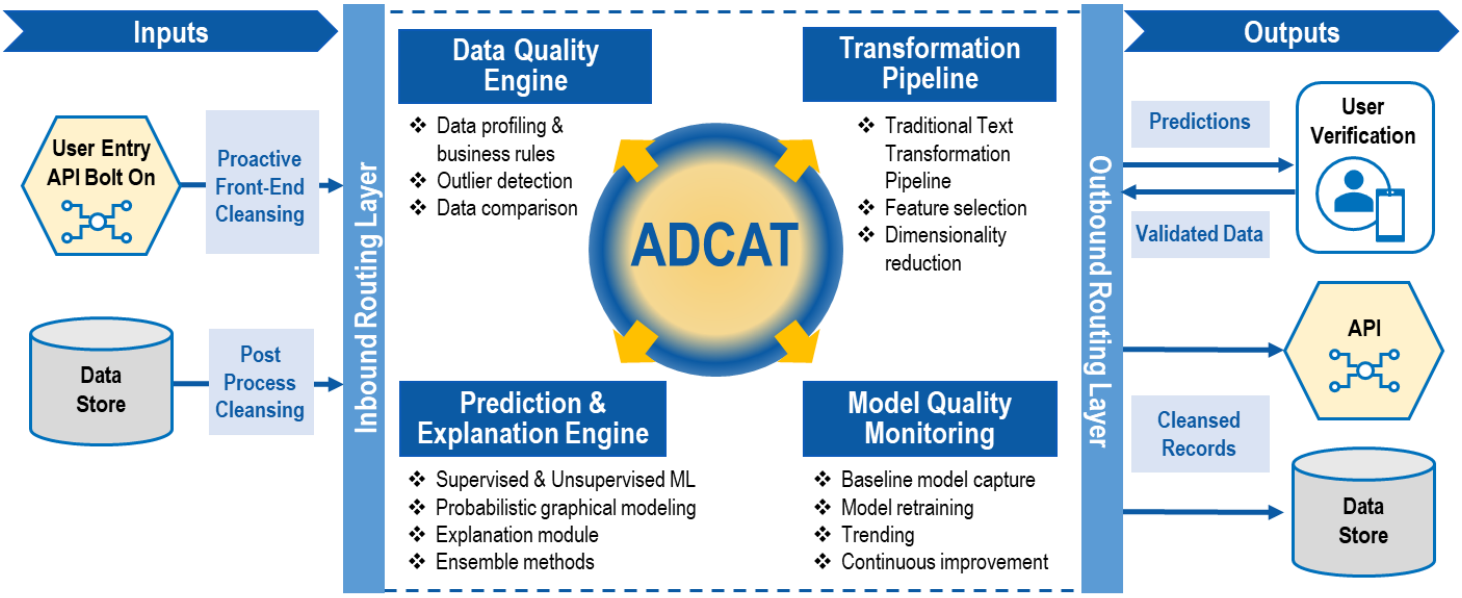
ADCAT

ADCAT is an enabling technology to automatically heal data errors and provide correction recommendations with corresponding explanations, resulting in higher quality data and driving higher confidence decision-making and improved productivity



ADCAT leverages multiple advanced machine learning techniques for healing

Example

Text Analytics Error Correction

Machine learning classifiers, leveraging information from high quality textual narratives, provide a highly accurate approach to cleansing error-prone coded fields

Example

Probabilistic Multivariate Error Correction

Models the conditional relationships between variables and their integrity constraints to infer erroneous data and predict the most likely correct data

Successfully deployed into a DoD IT system!

Ready to meet your self healing data use case needs!

Contact us to learn more!

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