Query Anomaly Detection (QAD)

Discover Unknown Data Patterns with AI-Powered Anomaly Detection

Saama's Query Anomaly Detection (QAD) is an AI-powered data-review capability within Smart Data Quality (SDQ) that identifies hidden data patterns and clinically relevant anomalies across clinical trial data. Unlike traditional rule-based validation systems, QAD acts on a full subject longitudinal graph rather than isolated data domains or strict visit windows. By evaluating complete subject records across all domains and timepoints simultaneously, QAD uncovers complex, multi-domain inconsistencies and "unknown unknowns" that static edit checks miss.

Benefits

Uncover Hidden Clinical Risks

Identify complex, cross-domain inconsistencies and physiological anomalies that evade traditional rule-based checks.

Eliminate Programming Overhead

Deploy highly advanced clinical pattern surveillance without requiring extensive manual rule configuration or custom coding.

Enhance Multi-Domain Accuracy

Systematically validate intricate relationships across Adverse Events, Labs, Medical History, Concomitant Medications, and Procedures.

Accelerate Finding Triage

Receive a ranked, confidence-scored list of potential queries with integrated evidence files for immediate human review.

Scale with Trial Complexity

Adapt automatically to large, evolving datasets without the need to continuously reprogram study-specific rules.

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Features

Subject Longitudinal Graph Reasoning

Analyzes complete, multi-role subject histories across every visit and data domain to capture temporal and contextual anomalies.

Protocol & DRM Grounding

Validates every analysis scenario against the clinical protocol and the Data Review Model (DRM) to confirm clinical relevance before execution.

Prebuilt Clinical Scenarios

Features out-of-the-box scenario templates covering Cross-Domain Assessment, Medical History Consistency, Outlier Detection, and Linkage Validation.

Cross-Domain Relationship Validation

Automatically flags implausible data pairings, such as abnormal post-dose monitoring values or procedural records that fail to align logically with reported adverse events.

No-Code Scenario Customization

Empowers users and sponsors to rapidly customize and activate specialized detection parameters at the study level without technical programming dependencies.

Explainable Confidence Scoring

Delivers clear, auditable rationales for every surfaced anomaly, supporting human-in-the-loop triage while systematically optimizing model accuracy over time.

The Saama Difference

Saama QAD modernizes data cleaning by pivoting from rigid, deterministic rules to intelligent, scenario-driven pattern recognition. Grounded in the Data Review Model, it bridges the gap between raw data collection and medical insight. While traditional checks miss implicit clinical contradictions, QAD evaluates trial data holistically, providing data reviewers with the targeted visibility required to protect study integrity and maintain absolute compliance control.

Contact info@saama.com. to schedule a personalized demonstration.