PERFORMANCE METRICS VISUALIZATION PATENT

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ABSTRACT

A system and method for visualizing and analyzing enterprise performance metrics through an interactive digital interface, comprising a multi-layered data processing architecture that collects, aggregates, and displays real-time operational metrics using advanced visualization techniques. The invention enables dynamic representation of complex organizational data through customizable dashboards, predictive analytics modules, and machine learning-enhanced pattern recognition.

BACKGROUND OF INVENTION

[0001] Modern enterprises face increasing challenges in effectively monitoring, analyzing, and visualizing operational performance metrics across diverse business units and technological systems. Traditional methods of performance visualization often fail to capture the complexity and interconnectedness of modern digital operations.

[0002] The present invention addresses these challenges through an innovative approach to metric visualization that leverages artificial intelligence and machine learning algorithms to present actionable insights through an intuitive interface.

DETAILED DESCRIPTION

1. System Architecture

[0003] The performance metrics visualization system comprises:

a) A central processing unit configured to receive data inputs from multiple enterprise sources

b) A machine learning engine for pattern recognition and predictive analytics

c) A visualization layer implementing proprietary rendering algorithms

d) An interactive user interface supporting real-time data manipulation

2. Data Collection Methods

[0004] The system employs multiple data collection mechanisms:

a) Direct API integrations with enterprise systems

b) IoT sensor data streams

c) Manual data entry interfaces

d) Automated scraping of approved data sources

3. Processing Architecture

[0005] Raw data undergoes multi-stage processing:

a) Initial validation and cleaning

b) Normalization and standardization

c) Pattern recognition analysis

d) Predictive modeling

e) Visualization preparation

CLAIMS

A computer-implemented method for visualizing enterprise performance metrics, comprising:

a) Receiving real-time data inputs from multiple enterprise sources

b) Processing said inputs through a machine learning engine

c) Generating interactive visualizations based on processed data

d) Displaying said visualizations through a customizable interface

The method of claim 1, wherein the machine learning engine comprises:

a) Neural network architecture for pattern recognition

b) Predictive analytics algorithms

c) Anomaly detection capabilities

d) Automated insight generation

A system for implementing the method of claim 1, comprising:

a) At least one processor

b) Memory storing instructions

c) Network interfaces

d) Display devices

TECHNICAL SPECIFICATIONS

1. Processing Requirements

The system requires minimum technical specifications:

- Processing Power: 2.5 GHz quad-core processor or higher
- Memory: 16GB RAM minimum
- Storage: 500GB SSD
- Network: 1Gbps connection

2. Software Dependencies

The implementation relies on:

- Summit Digital Solutions Peak Performance Platform v4.2
- TensorFlow 2.8 or higher
- Custom visualization libraries
- Enterprise database connectivity modules

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ASSIGNMENT

All rights, title, and interest in this patent application are assigned to Summit Digital Solutions, Inc., a Delaware corporation having its principal place of business at 2200 Innovation Drive, Suite 400, Boston, MA 02110.

LEGAL REPRESENTATION

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CERTIFICATION

I hereby certify that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

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