TECH mahindra

DQGuard

DQGuard -

Data Profiling, Anomaly Detection, Data Quality

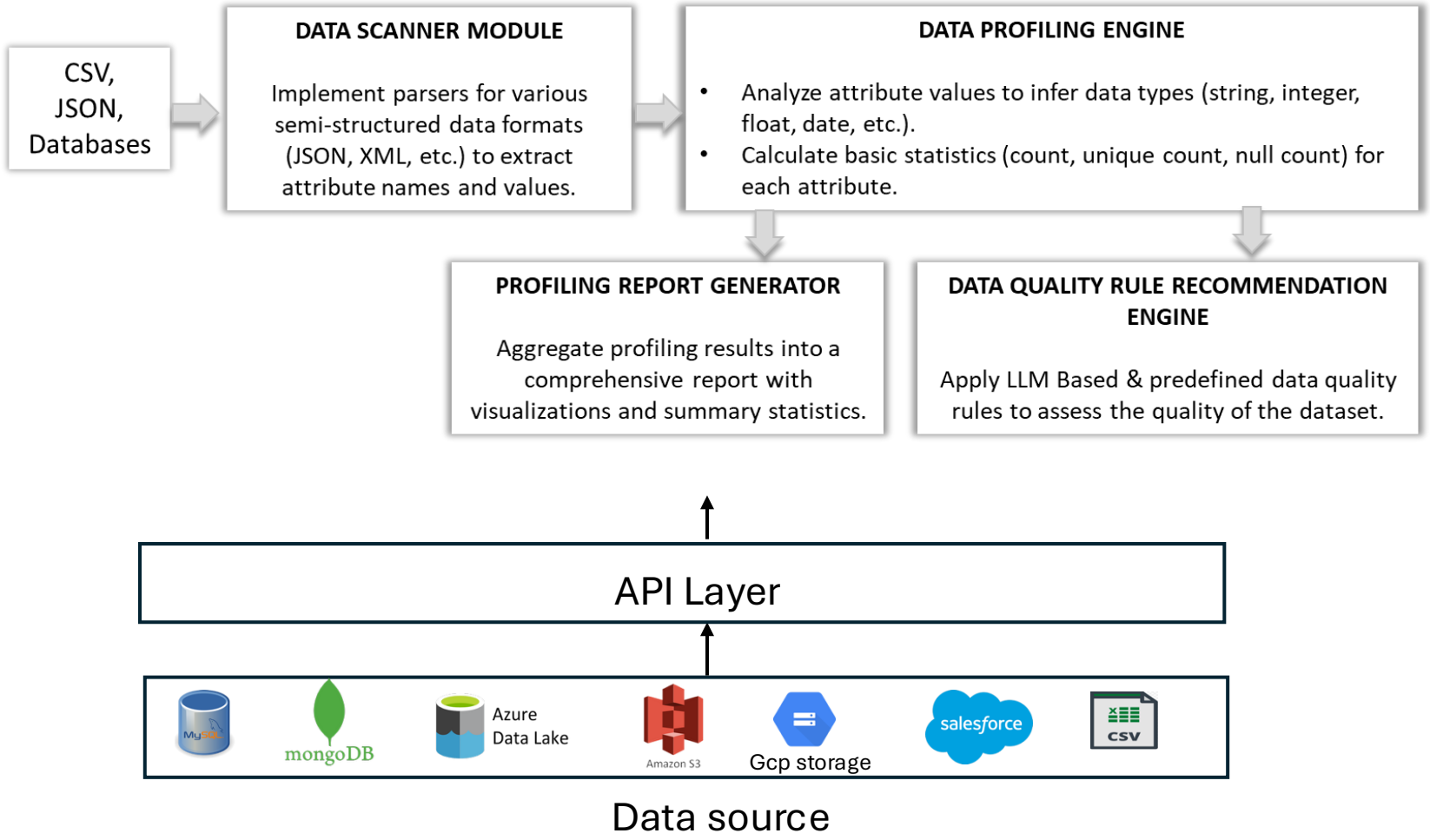
Key Business Challenges and Asks

- Inconsistent and Poor-Quality Data Across Systems
- Manual and Time-Consuming Data Profiling
- Lack of Real-Time Anomaly Detection
- High Dependency on Technical Teams for Data Quality Rules
- Challenges in Understanding Profiling Output

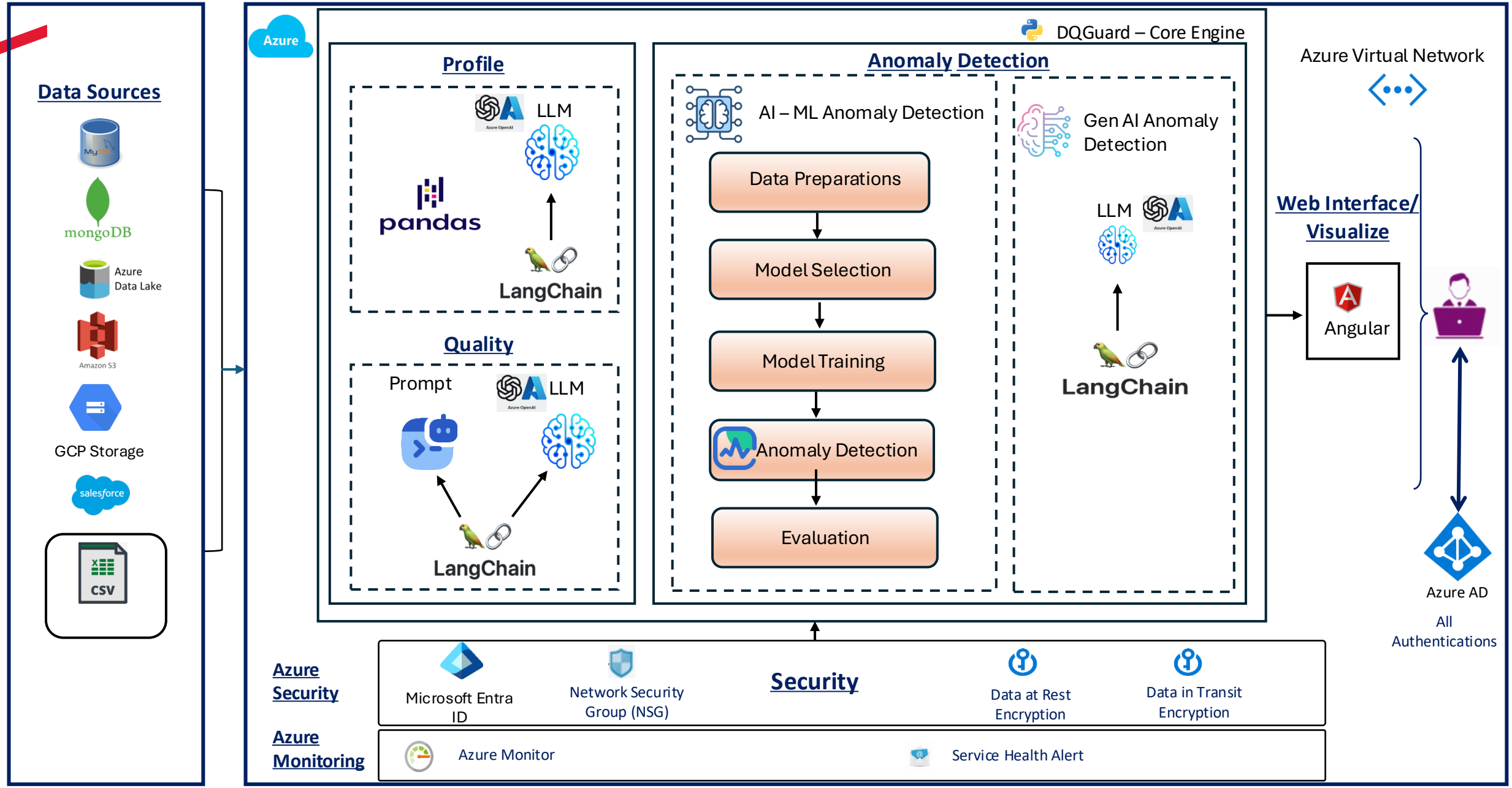
Solution Approach

A comprehensive strategy leveraging data integration, matching AI-ML algorithms, and Generative AI to accurately resolve entities, ensure data consistency, and improve golden records traceability across multiple sources

High Level Solution View



DQGuard on Azure - Solution Architecture



Solution Features

Smart Data Profiling – Automatically analyze tables and columns for data completeness, consistency, and structure.

Pattern & Distribution Analysis – Uncover hidden patterns and value distributions to understand data behavior.

Cross-Table Relationship Insights – Detect data dependencies and consistency across multiple tables.

AI-Powered Anomaly Detection – Identify outliers and broken patterns using Gen AI and ML models.

Real-Time Data Monitoring – Get instant alerts on data issues as they occur during data flow.)

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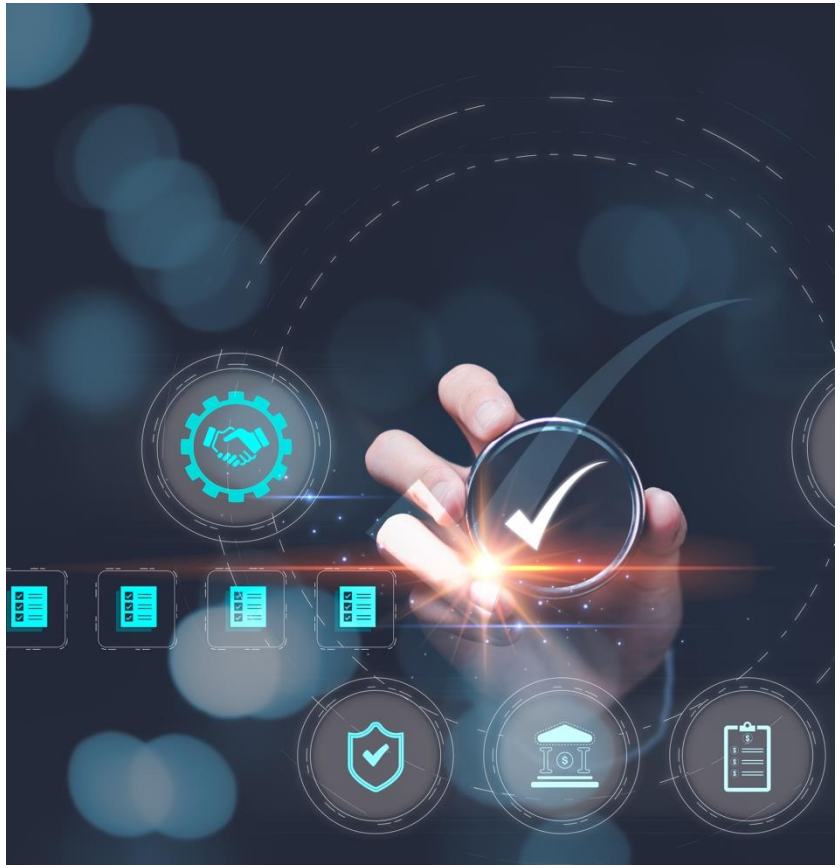
Natural Language Data Checks – Run data quality rules using simple, conversational queries—no coding required.

Automated Data Quality Scoring – Generate actionable quality scores to evaluate data against business rules.

LLM-Driven Data Insights – Receive intelligent, human-readable summaries and recommendations from profiling outputs.

Solution Benefits

- Improved Data Quality Through Gen AI-Powered Profiling
- Faster Decision-Making with LLM-Based Natural Language Insights
- Proactive Issue Identification with Real-Time Anomaly Detection
- Empowers Business Users via Natural Language Interface
- Challenges in Understanding Profiling Output

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