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BUILDING RESILIENT DATA PIPELINES FOR FINANCIAL METRICS ANALYSIS USING MODERN DATA PLATFORMS

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ABSTRACT

In the rapidly evolving financial landscape, organizations are increasingly reliant on data-driven insights to guide strategic decisions. Building resilient data pipelines is crucial for ensuring the integrity, accuracy, and timeliness of financial metrics analysis. This paper explores the design and implementation of robust data pipelines leveraging modern data platforms, such as cloud-based solutions and distributed computing frameworks. We discuss key challenges faced during the integration of diverse data sources, including legacy systems and real-time data streams. By adopting best practices in data ingestion, transformation, and storage, organizations can enhance their analytical capabilities while maintaining compliance with regulatory requirements. The paper also highlights case studies that demonstrate the impact of resilient data pipelines on financial performance and operational efficiency. Ultimately, this research underscores the importance of a well-architected data pipeline in enabling organizations to respond swiftly to market changes and make informed financial decisions.

KEYWORDS: *Resilient Data Pipelines, Financial Metrics Analysis, Modern Data Platforms, Data Integration, Cloud Solutions, Distributed Computing, Data Ingestion, Regulatory Compliance, Operational Efficiency, Analytical Capabilities*

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