

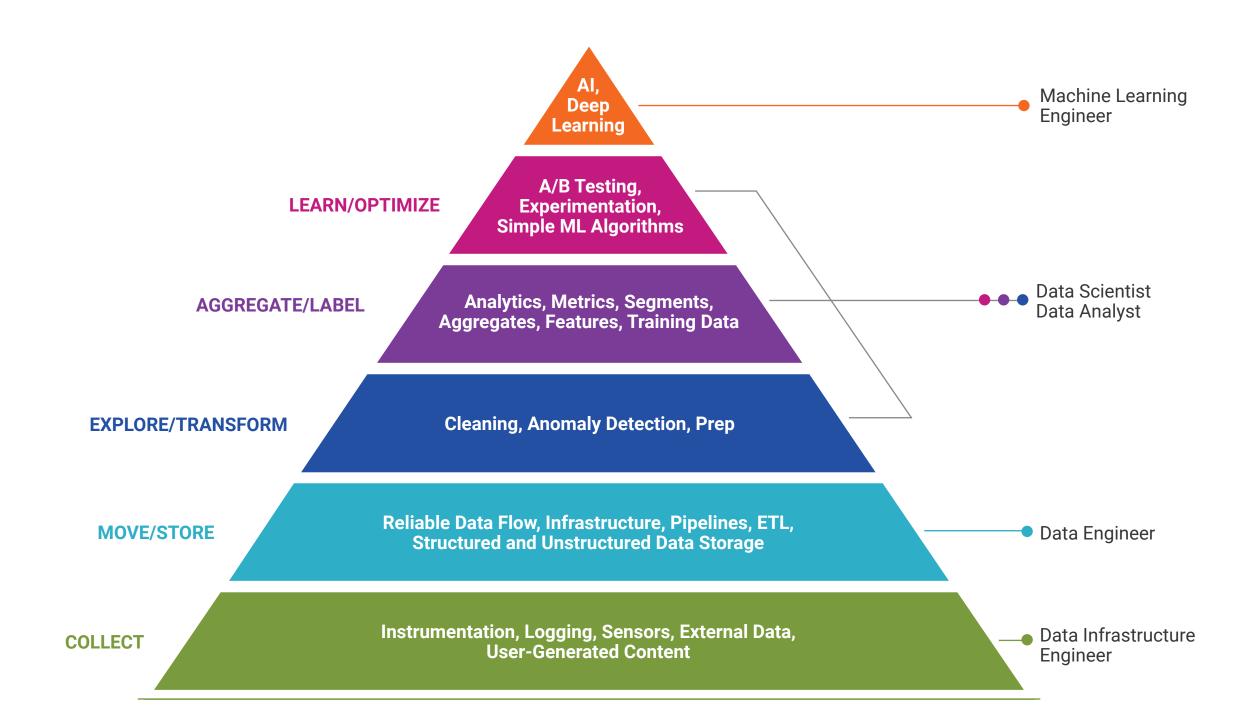
Infographic

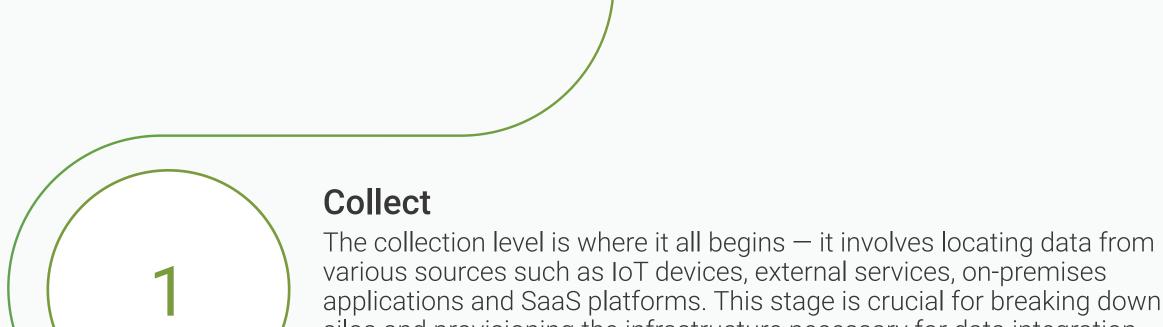
Al's Backbone: Mastering the Data Science Hierarchy of Needs

When it comes to implementing artificial intelligence (AI), keep your eyes on a critical piece of the puzzle: data integration. If your data foundation for AI isn't strong enough, problems will emerge for AI, machine learning (ML) and data science projects.

Dive into "The Data Science Hierarchy of Needs" to explore the pivotal role of data integration, prerequisites for AI success and key players.

The Data Science Hierarchy of Needs



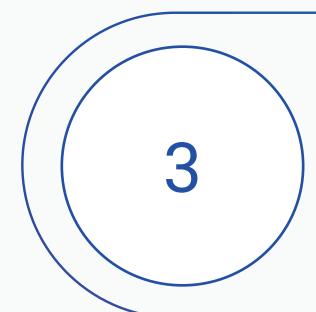


silos and provisioning the infrastructure necessary for data integration and management activities.

Move/Store

The second level is dedicated to the production of reliable data pipelines where governance and compliance needs are met. At this stage, it's vital to implement best practices for standardizing data. The data is then stored in a data warehouse, data lake, lakehouse or other data models. Executing this level correctly enables data lineage tracking, which is key for building data trust.

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Explore/Transform The third level is where d

The third level is where data analysts and scientists become more hands-on. Data integration at this level often involves cleaning and pre-processing data from various sources for consistency and compatibility. This stage is essential for maintaining the quality and accuracy of subsequent analyses.

Aggregate/Label

The fourth level involves bringing data together from various sources to get a complete understanding of the problems you're trying to solve. This stage is important for tasks like aggregation where you need to combine data to create meaningful summaries. With a comprehensive view of data, enhanced data quality and easy data labeling, you can get the most value out of your data science projects.





Learn/Optimize The fifth level is where

The fifth level is where data integration opens doors to diverse, comprehensive datasets and verifies test data is representative of real-world data, leading to more reliable outputs from ML models. This stage allows for continuous integration of new and updated data to ensure AI results stay relevant and models are optimized with clean data sets.

Bottom line: Without a solid data integration strategy, the higher levels of the pyramid — where the AI magic happens — are compromised.

Lead the charge in AI with cutting-edge data integration.

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Source: Informatica, Bridge the Gap to Real-World Al Anchored by Data Integration, 2024



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