

Graph Analytics: Unveiling Hidden Relationships in Data

Explore the power of graph databases and analytics
in revealing interconnected data insights

LET'S
CONNECT!



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Apache Iceberg

The Definitive Guide

Data Lakehouse Functionality, Performance,
and Scalability on the Data Lake

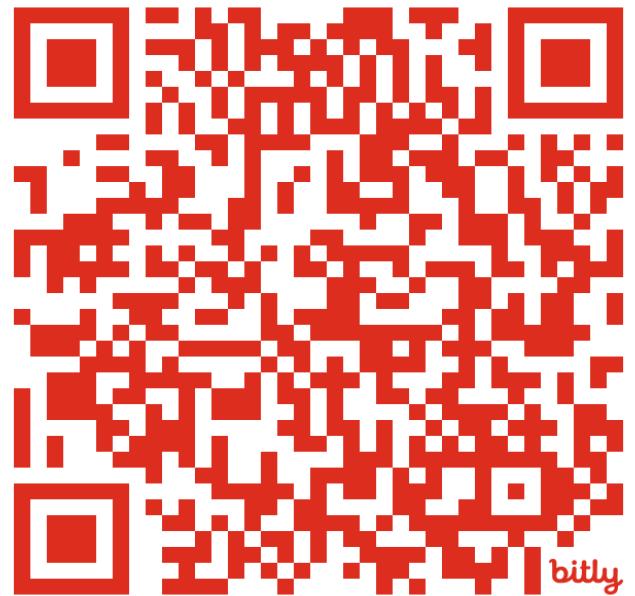


Compliments of



Tomer Shiran,
Jason Hughes &
Alex Merced

Forewords by Gerrit Kazmaier,
Raghu Ramakrishnan & Rick Sears



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LET'S
CONNECT!



Professional



Professor



Social

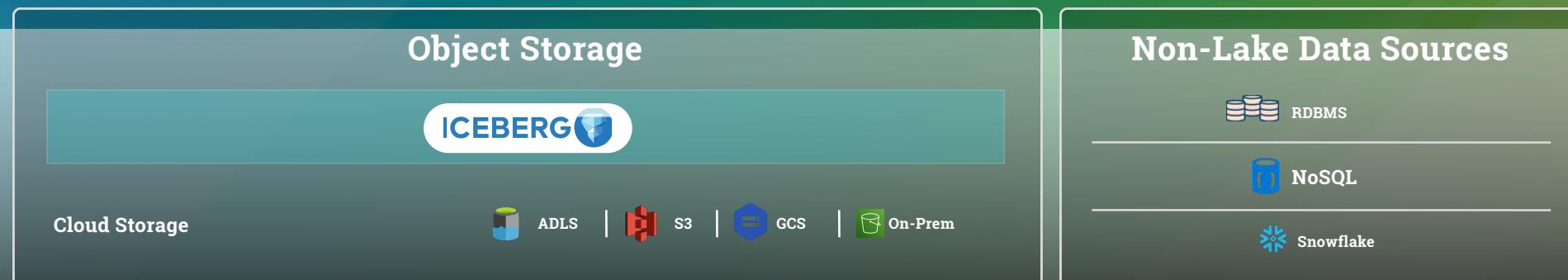
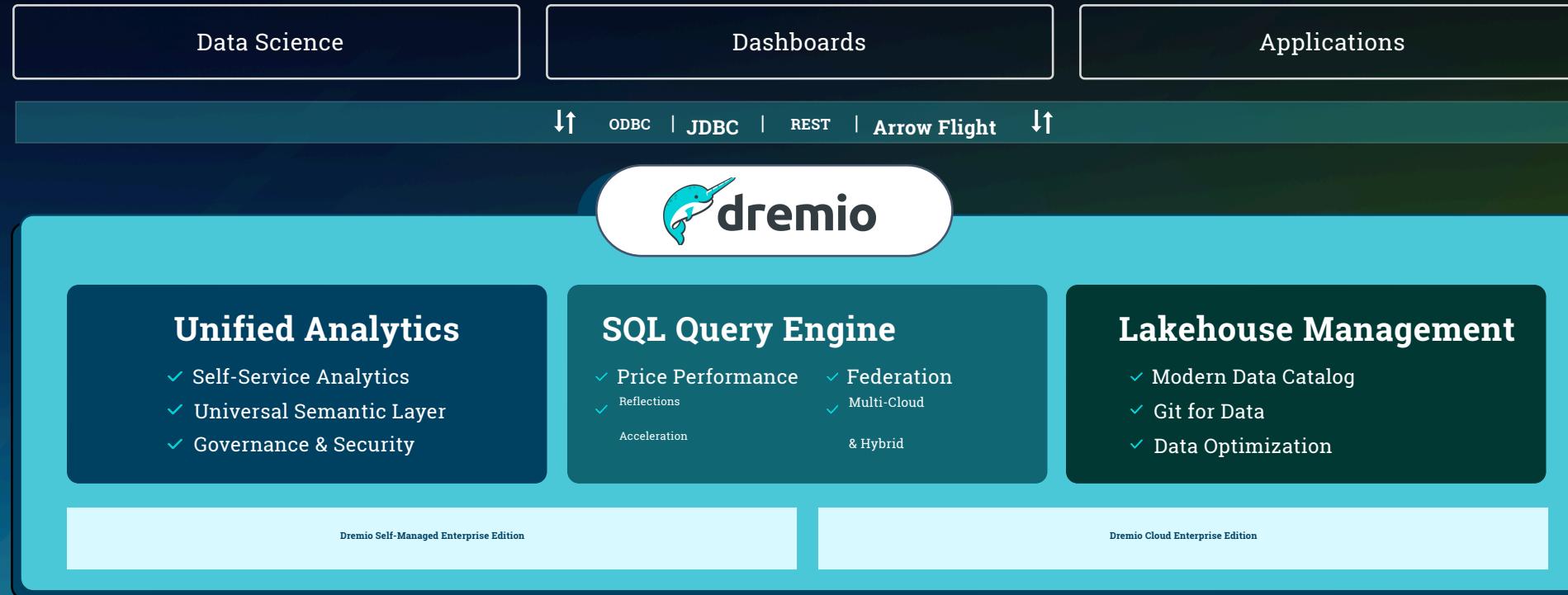


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n

The Unified Lakehouse Platform for Self-Service Analytics





The Unified Lakehouse Platform for Self-Service Analytics & AI

Shift-Left Analytics for faster time to insight at a fraction of the cost

Bring users closer
to the data with
Self-Service Analytics

Optimized SQL Query
Engine price performance with
acceleration for sub-second BI

Centralized Data
Governance enables
faster access to data

Next-Gen Dataops with Git-
inspired data version
control and data optimization

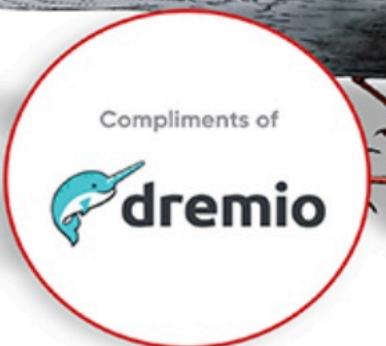
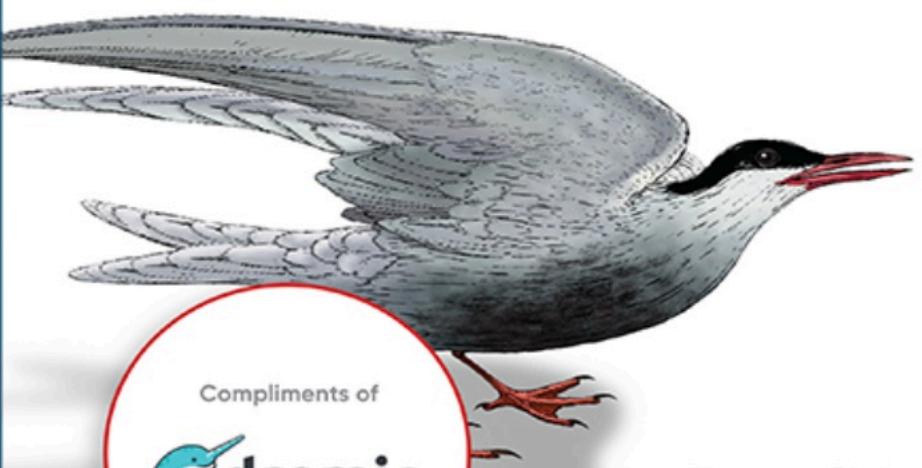


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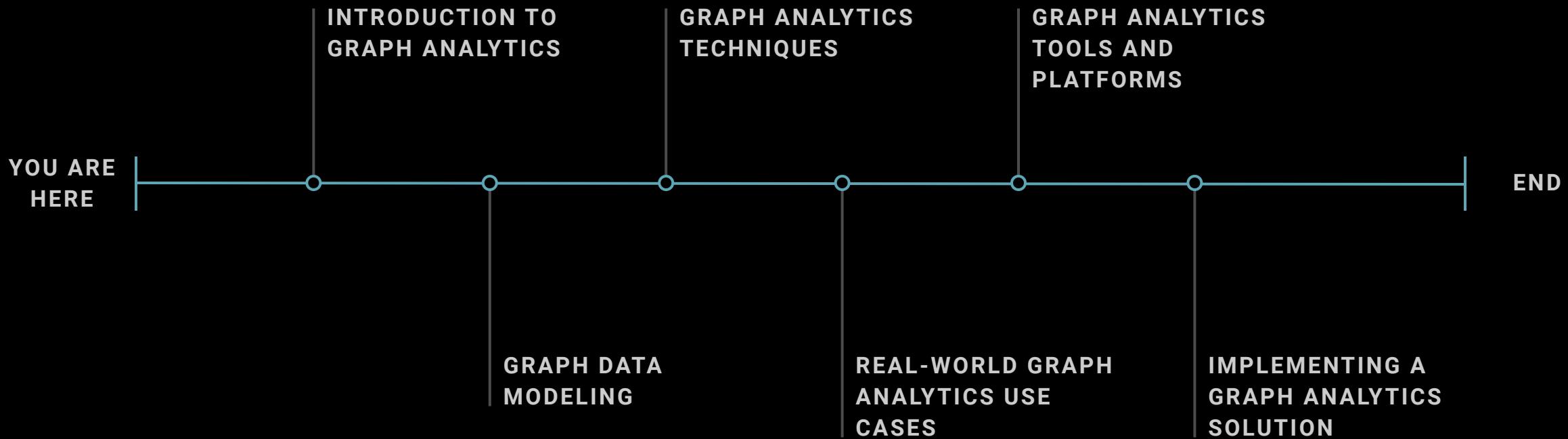


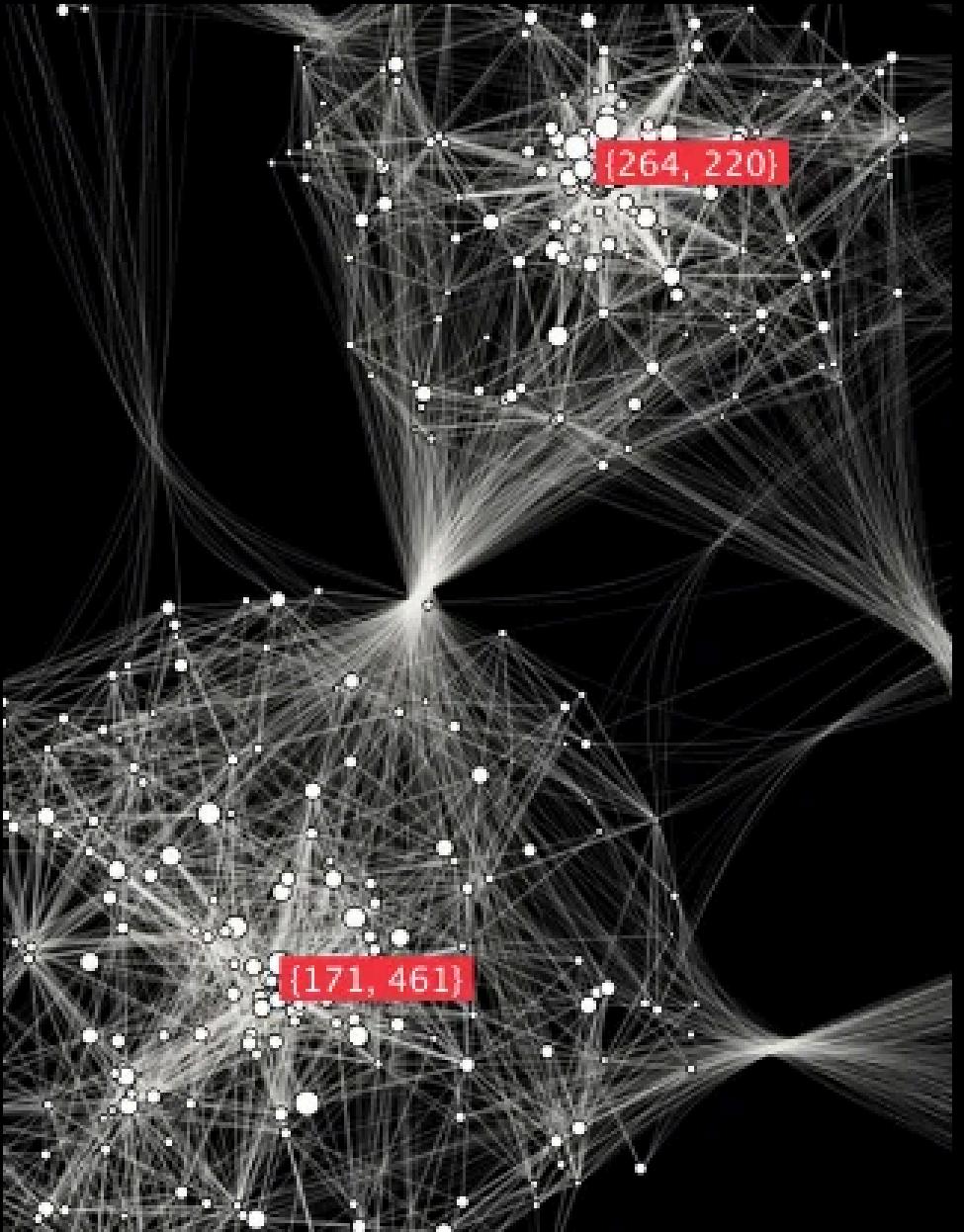
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Agenda

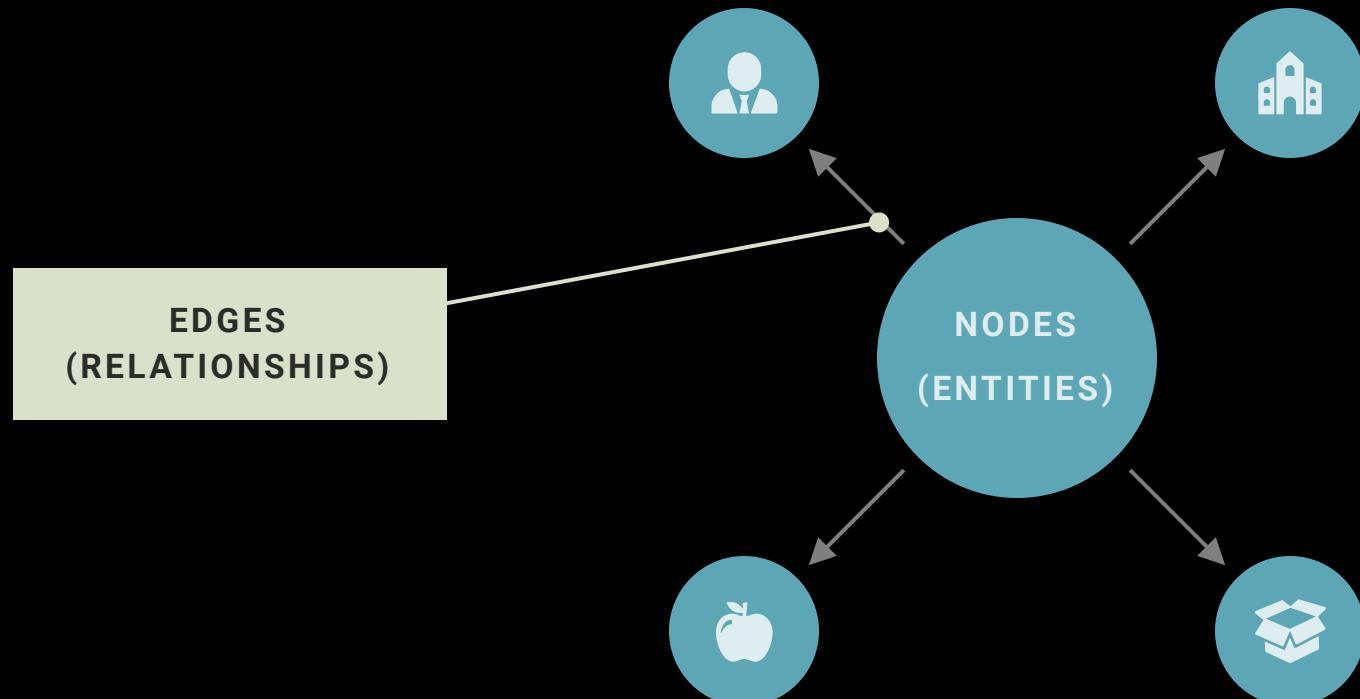




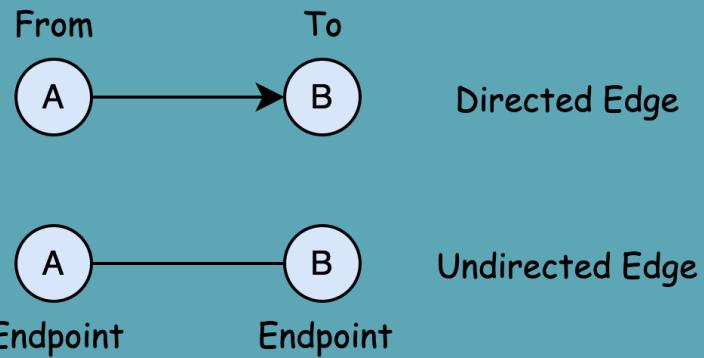
What is Graph Analytics?

Graph analytics refers to extracting insights and knowledge from graph-structured data, representing the relationships and connections between entities. This approach allows for exploring and analyzing complex, interconnected datasets not easily captured by traditional data models.

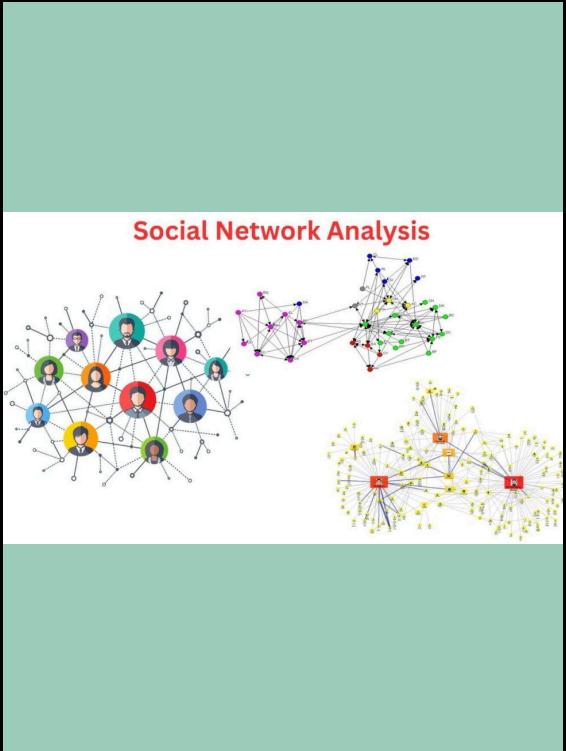
Key Characteristics



Common Graph Types

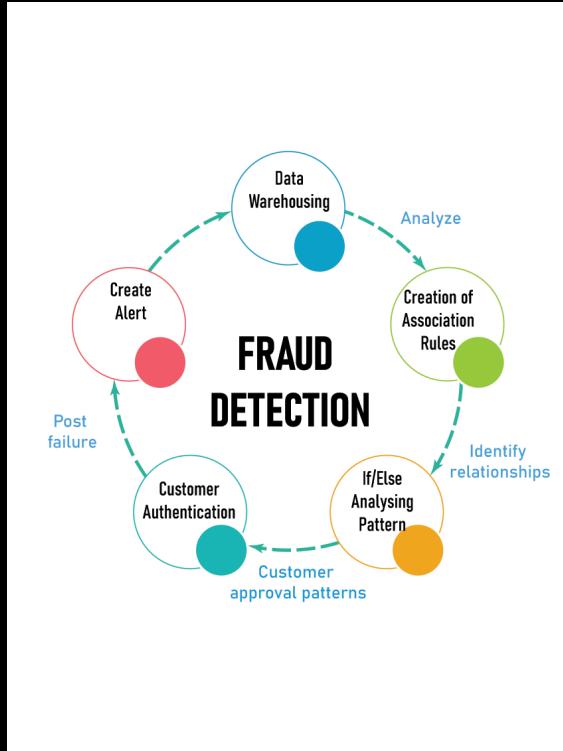


Real-World Applications



SOCIAL NETWORK ANALYSIS

Modeling relationships between users to power social recommendations and community detection



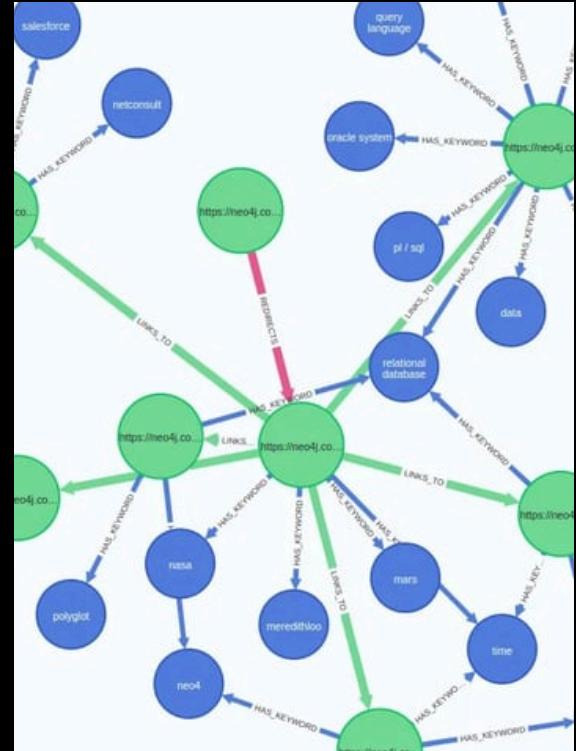
FRAUD DETECTION

Leveraging graph patterns to identify fraudulent activities and anomalies in financial transactions



RECOMMENDATION SYSTEMS

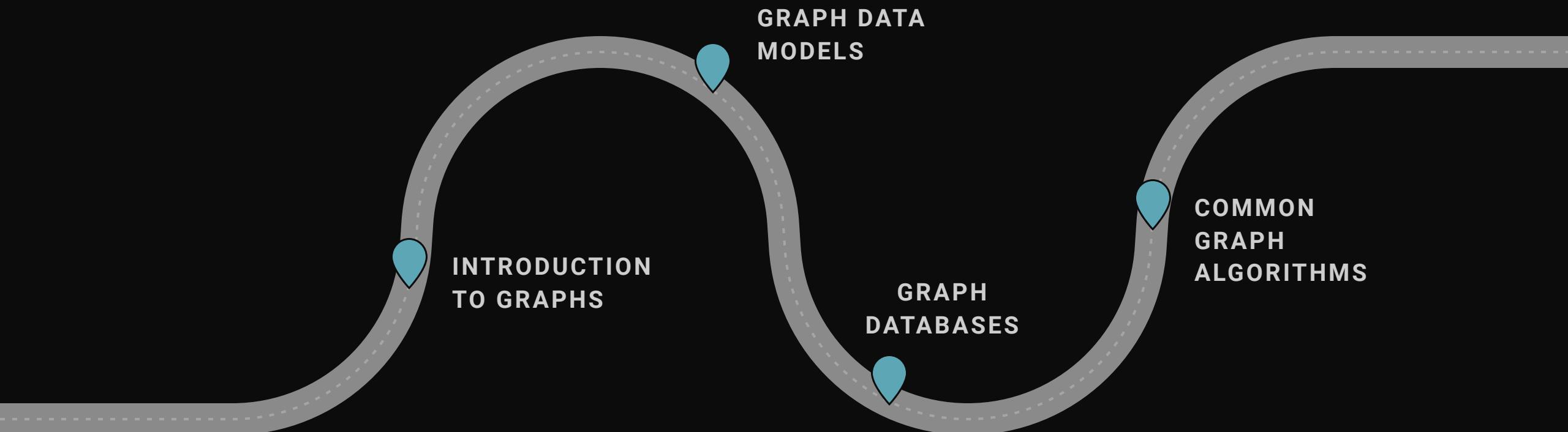
Generating personalized product, content, and service recommendations based on user behaviors and interests



KNOWLEDGE GRAPHS

Integrating and querying diverse data sources to build comprehensive, semantic models of information

Graph Theory Fundamentals



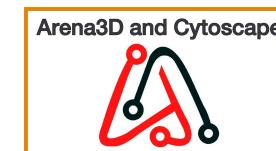
INTRODUCTION
TO GRAPHS

GRAPH DATA
MODELS

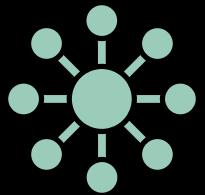
GRAPH
DATABASES

COMMON
GRAPH
ALGORITHMS

Tools & Implementation



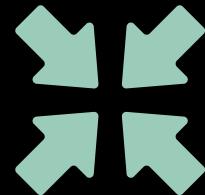
Implementation Examples



**BASIC GRAPH
CREATION AND
VISUALIZATION**



**COMMUNITY
DETECTION**



**CENTRALITY
ANALYSIS**

Best Practices & Guidelines

OPTIMIZE FOR SPECIFIC
ANALYTICAL GOALS

LEVERAGE APPROPRIATE
VISUALIZATION
TECHNIQUES

PRIORITIZE
PERFORMANCE AND
SCALABILITY

AVOID COMMON
MODELING PITFALLS



THANK YOU!

Questions?