

Graph Analytics: Unveiling Hidden Relationships in Data

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

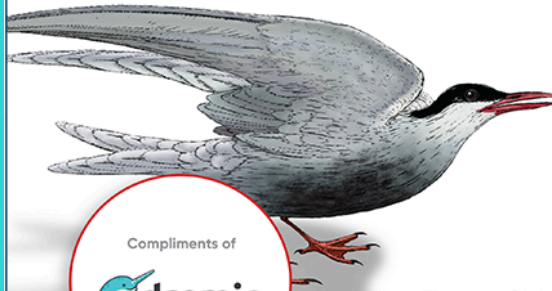
LET'S
CONNECT!



O'REILLY®

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



bitly

Intro - Andrew Madson

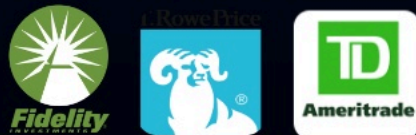
Developer Advocate - Tech Evangelist

Dremio

LET'S
CONNECT!



Professiona



Professor



Social



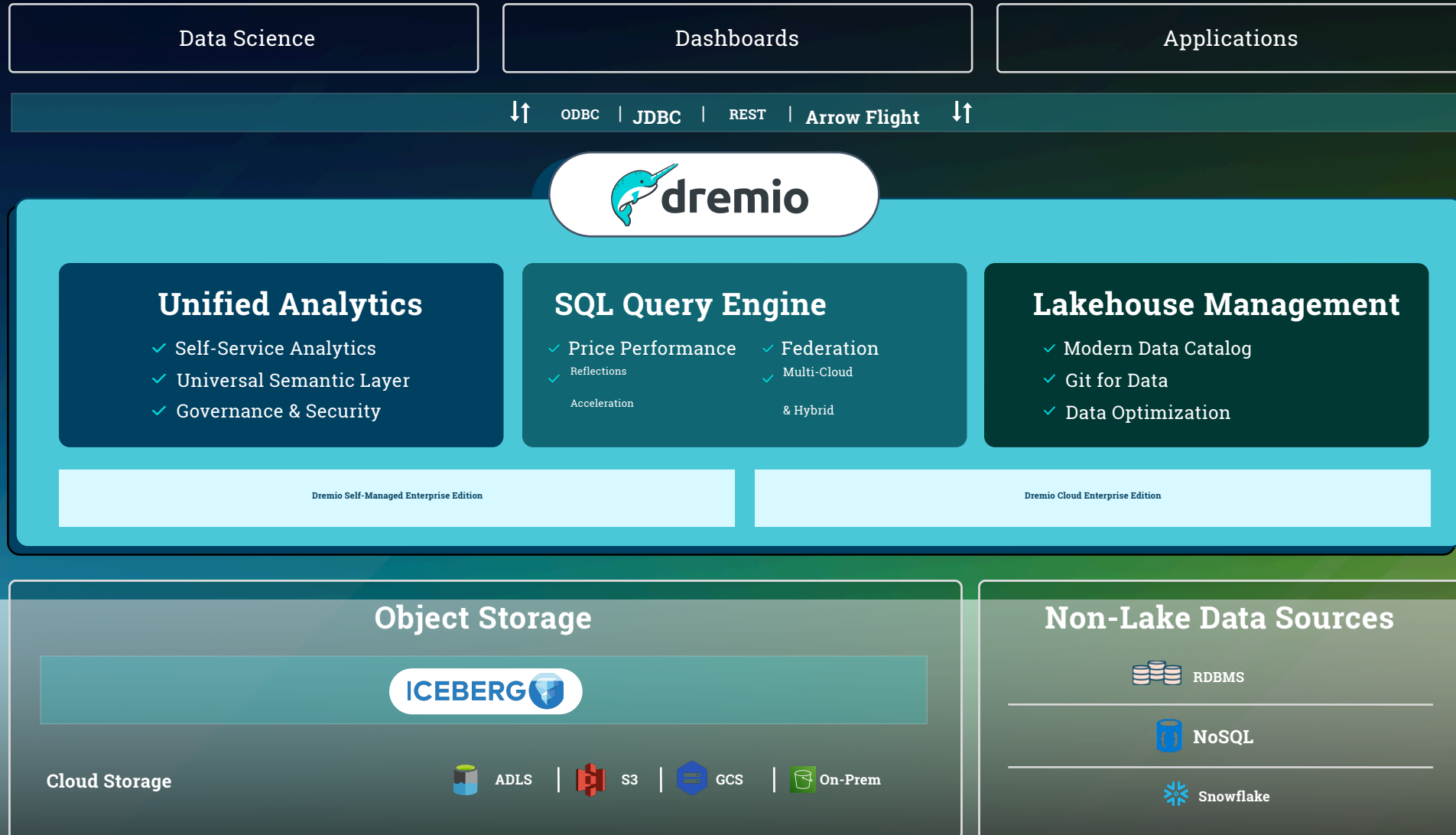
@andrew-
madson



@insightsxdesig

n

The Unified Lakehouse Platform for Self-Service Analytics





The Unified Lakehouse Platform for Self-Service Analytics & AI

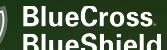
Shift-Left Analytics for faster time to insight at a fraction of the cost

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



FREE!

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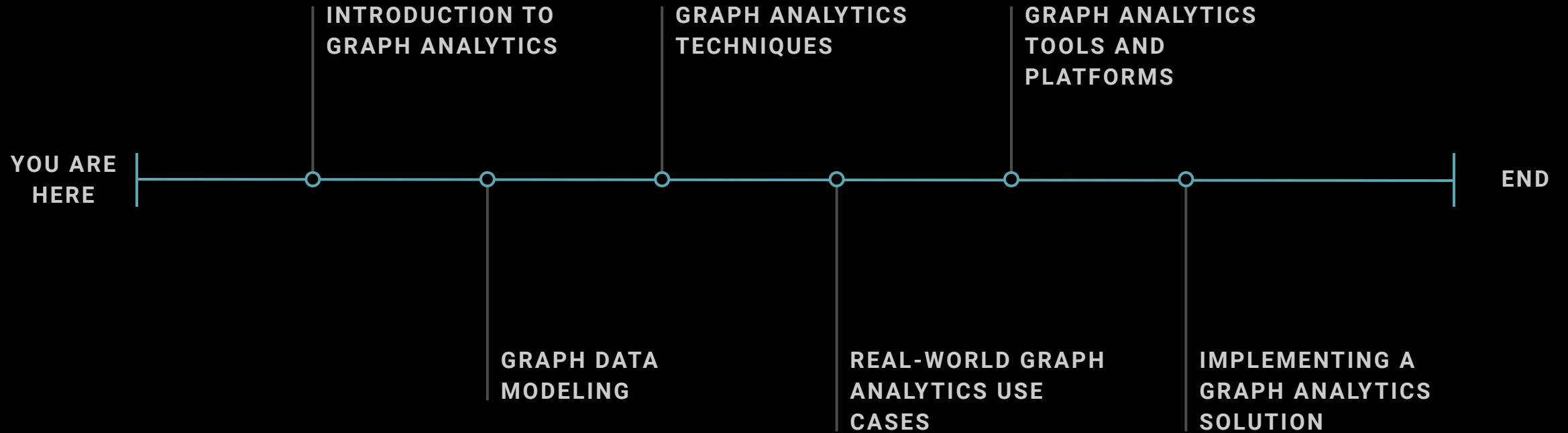


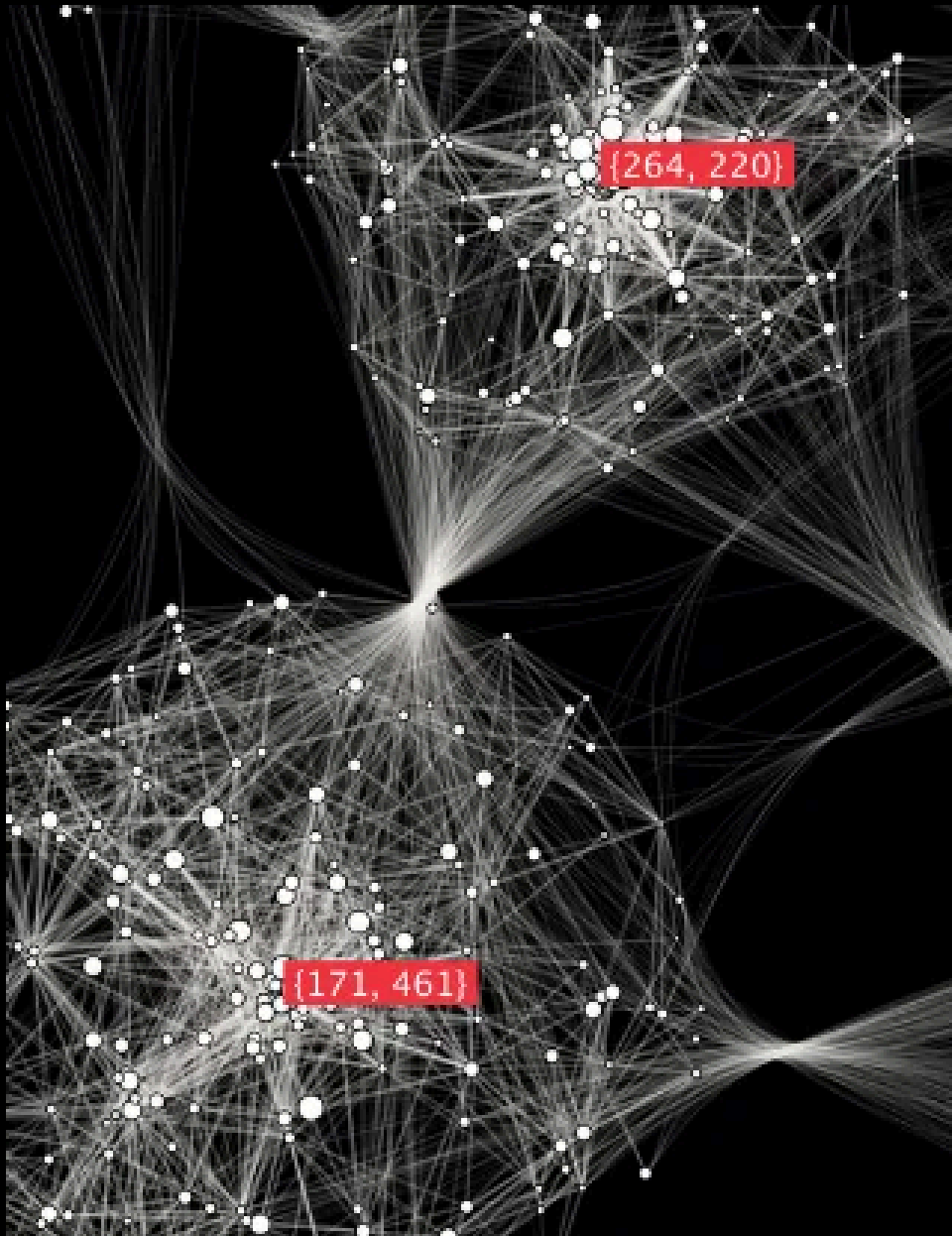
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Agenda

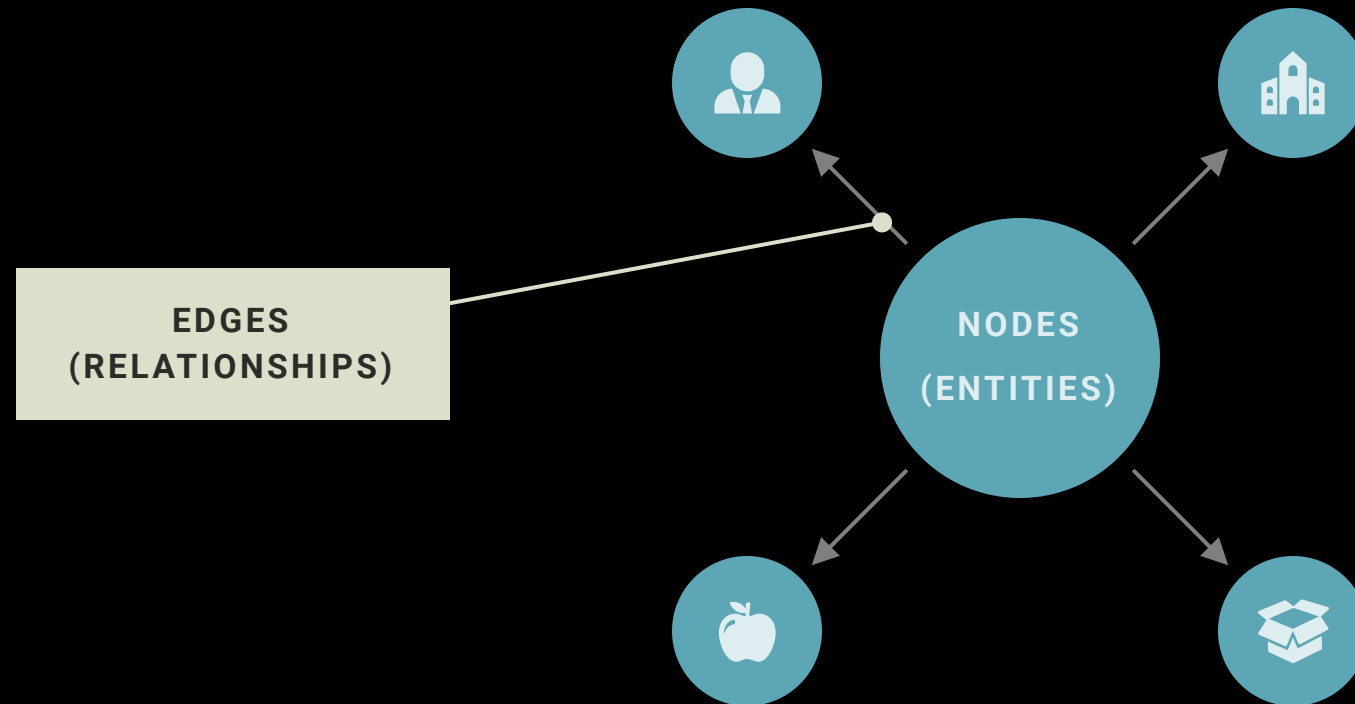




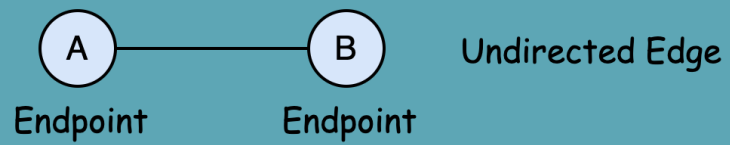
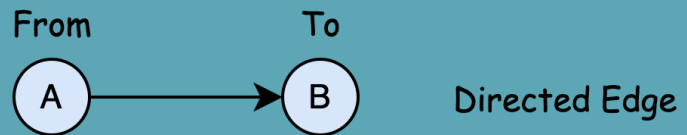
What is Graph Analytics?

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.

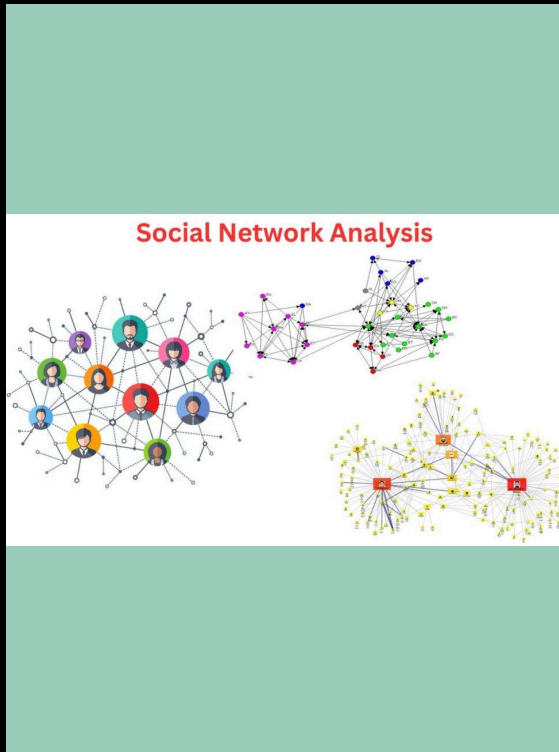
Key Characteristics



Common Graph Types

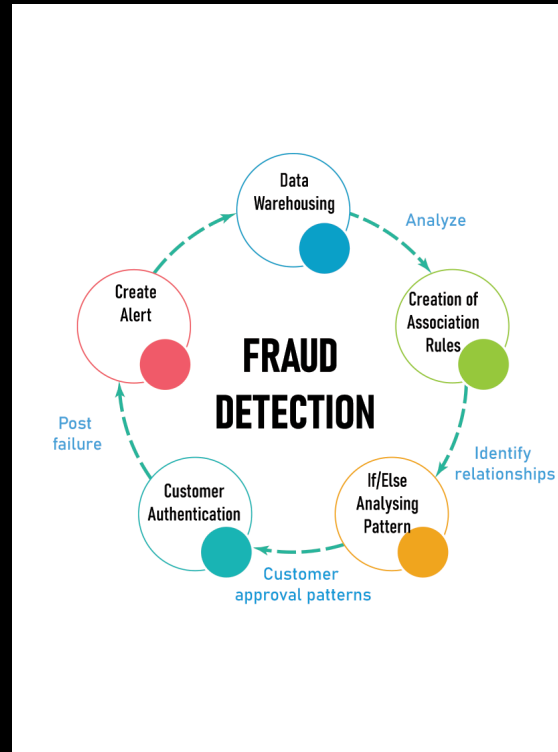


Real-World Applications



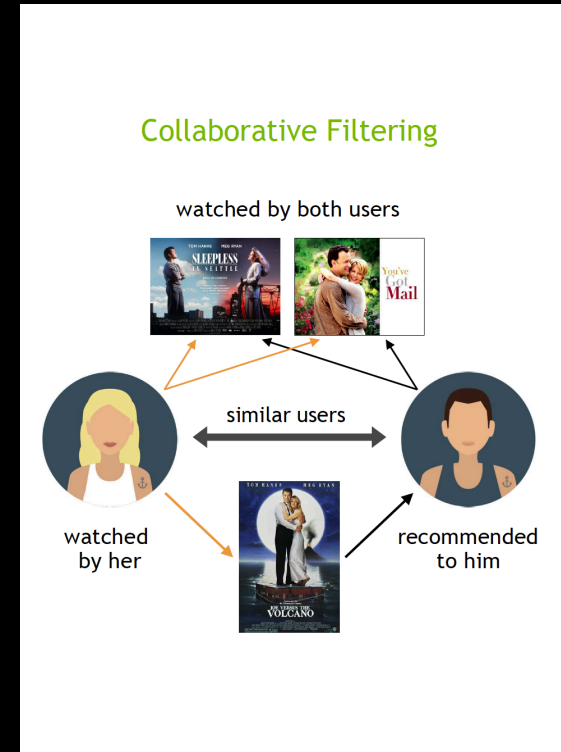
SOCIAL NETWORK ANALYSIS

Modeling relationships between users to power social recommendations and community detection



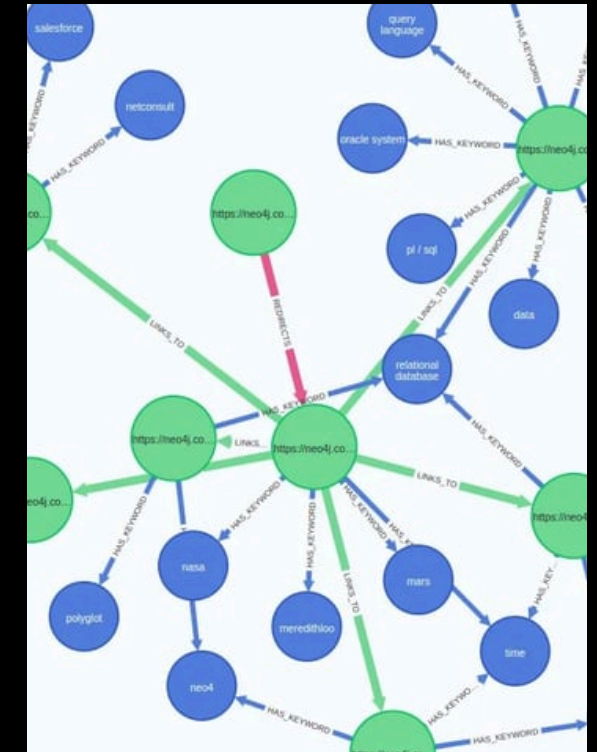
FRAUD DETECTION

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



RECOMMENDATION SYSTEMS

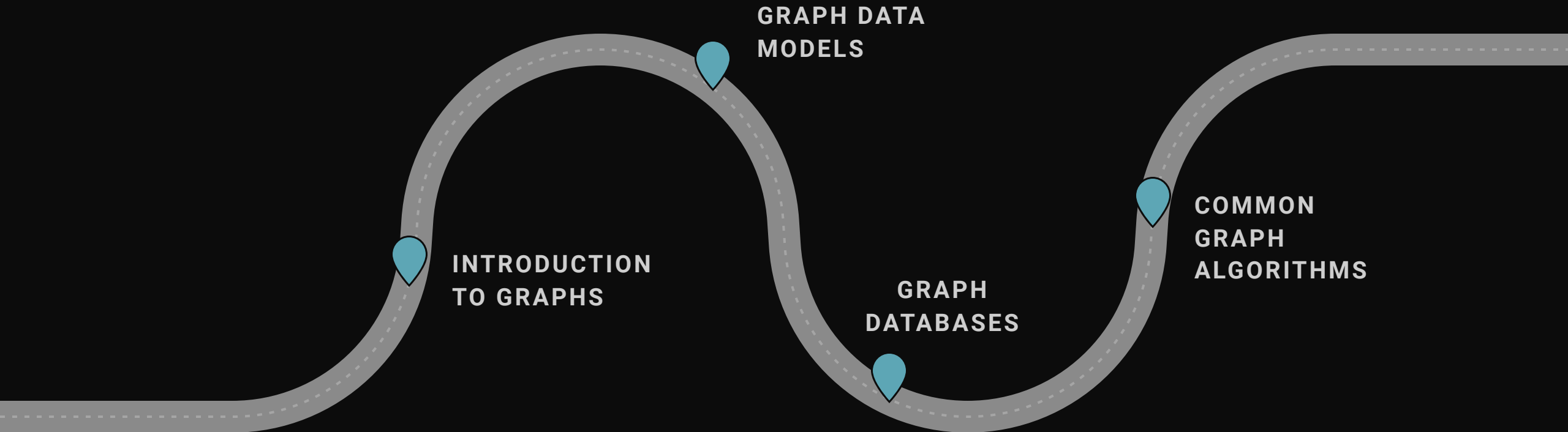
Generating personalized product, content, and service recommendations based on user behaviors and interests



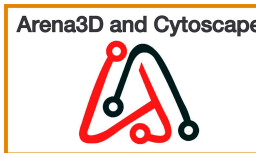
KNOWLEDGE GRAPHS

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

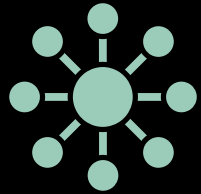
Graph Theory Fundamentals



Tools & Implementation



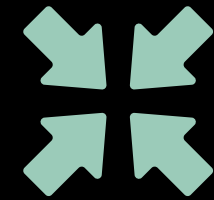
Implementation Examples



**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?