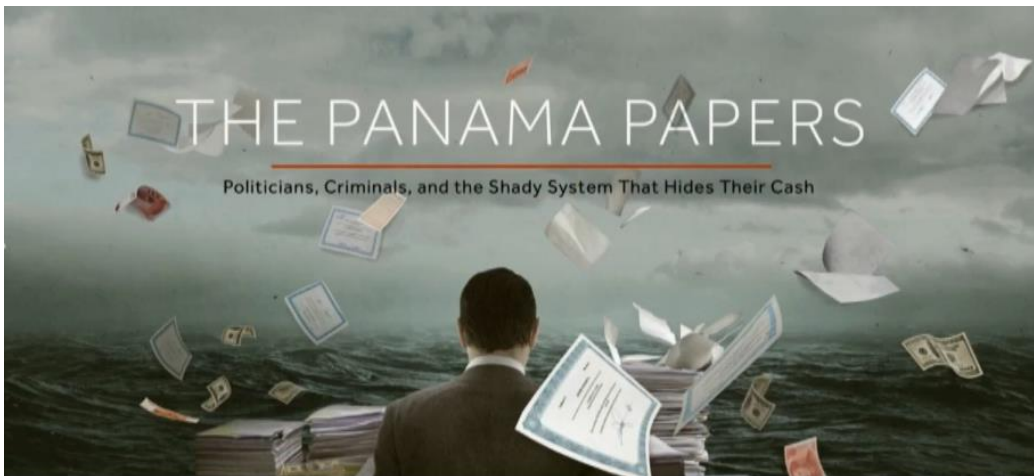


Graph databases: The best kept secret for effective AI

Emil Eifrem, Neo4j

Neo4j CEO explains why connected data is the key to more accurate, efficient and credible learning systems. Using real world use cases ranging from space engineering to investigative journalism, he will outline how a relationships-first approach adds context to data - the key to explainable, well-informed predictions.



11.5 million documents

Emails, Scanned Documents,
Bank Statements etc...



2.6 TB

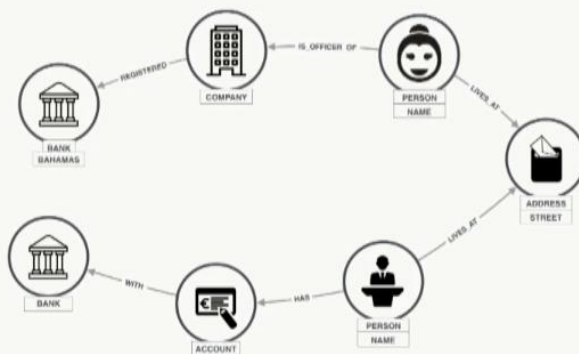


11.5 million documents

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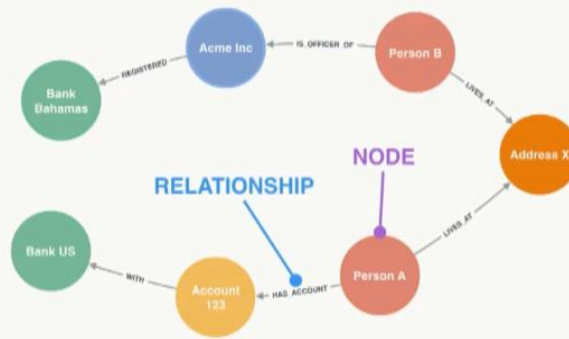


11.5 million documents

Emails, Scanned Documents,
Bank Statements etc...



2.6 TB



ICIJ The Panama Papers

Panama Papers The Power Players

Sigmundur David Gunnlaugsson
Prime minister of Iceland (2013-present), Member of Parliament (2009-present), Chairman of the Progressive Party (2008-present)

Related countries
Iceland
Luxembourg
Virgin Islands, British

Sigmundur David Gunnlaugsson is the prime minister of Iceland. A former journalist and radio personality, Gunnlaugsson helped lead a campaign against bank bailouts after the Icelandic financial crisis in 2008 and became chairman of the Progressive Party shortly thereafter. He entered parliament in 2009 and led the Progressives to victory in 2013, becoming at age 35 the nation's youngest prime minister. His wife, Anna Sigurlaug Pálsdóttir, is the daughter of a wealthy Toyota dealer in Iceland.

Inside the Mossack Fonseca data's Offshore company held millions of dollars worth of bonds in Iceland banks that failed [Read more...](#)

Offshore glossary

Response

Asked if he had ever owned an offshore company in a television interview in March, Gunnlaugsson said no. "Myself? No. Well, the Icelandic

Explore the data: Sigmundur David Gunnlaugsson

The Pulitzer Prizes

5 FREE WINNERS The 2017 Pulitzer Prize Winner in Explanatory Reporting

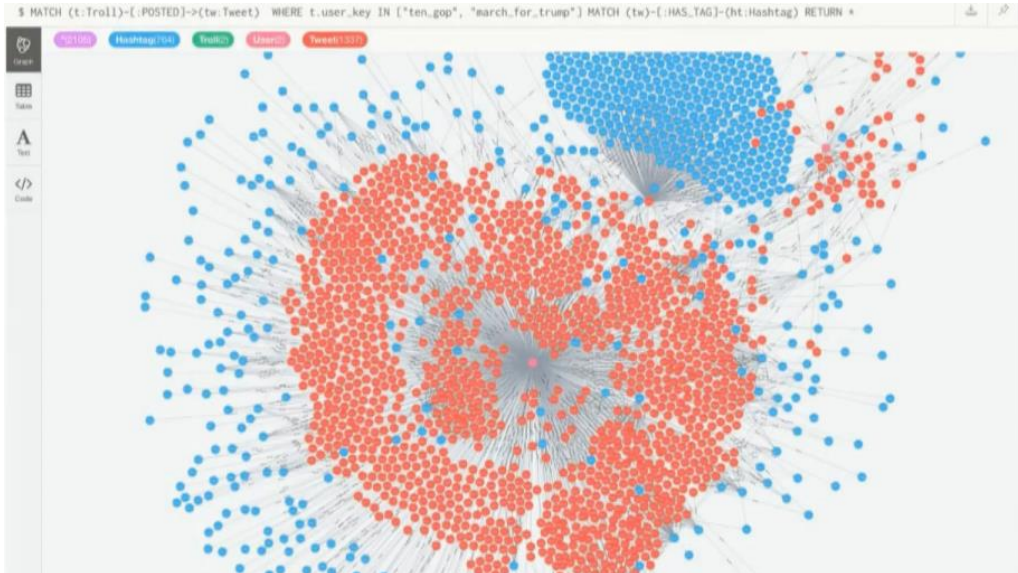
For a distinguished example of explanatory reporting that illuminates a significant and complex subject, demonstrating mastery of the subject, bold writing and clear presentation, using any available journalistic tool. Fifteen thousand dollars (\$15,000).

International Consortium of Investigative Journalists, McClatchy and Miami Herald

For the Panama Papers, a series of stories using a collaboration of more than 300 reporters on its continents to expose the hidden infrastructure and global scale of offshore tax havens. (Moved by the Board from the International Reporting category, where it was entered.)

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ICIJ Pulitzer Price Winner 2017



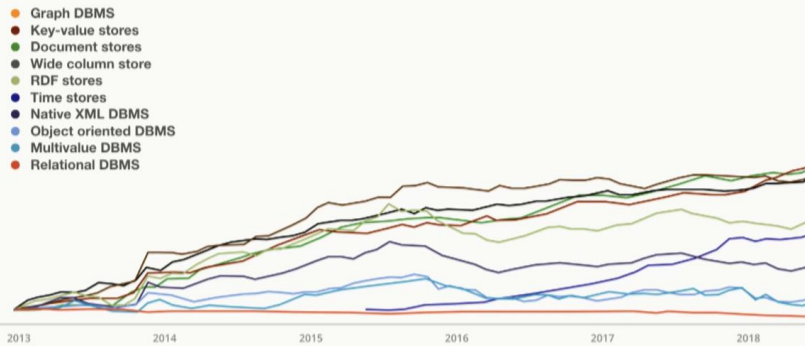
Common Graph Use Cases



Real-time recommendations using customer purchase data for retailers.

Popularity of Graphs

DB-engines Ranking of Database Categories



76%

FORTUNE 100

have adopted or
piloted Neo4j



Finance

20 of top 25



Software

7 of top 10



Logistics

3 of top 5



Retail

7 of top 10



Airlines

3 of top 5



Telco

4 of top 5

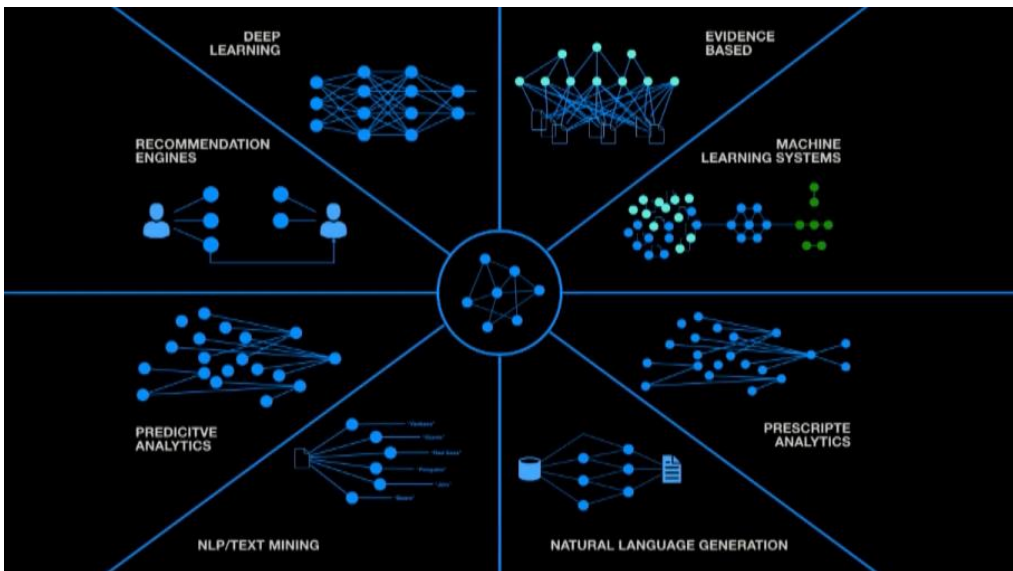


Hospitality

3 of top 5

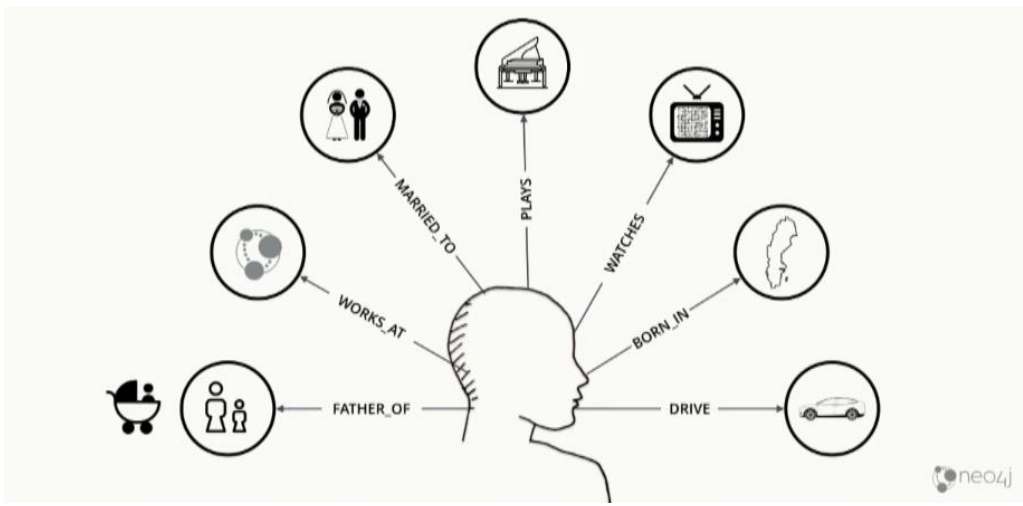
There are companies like Google, Paypal, AirBnB that have entered their market and reshaped them along graphs with connections between their data.

AI & Graphs



These are the categories of A.I, they are all described as graphs with connections

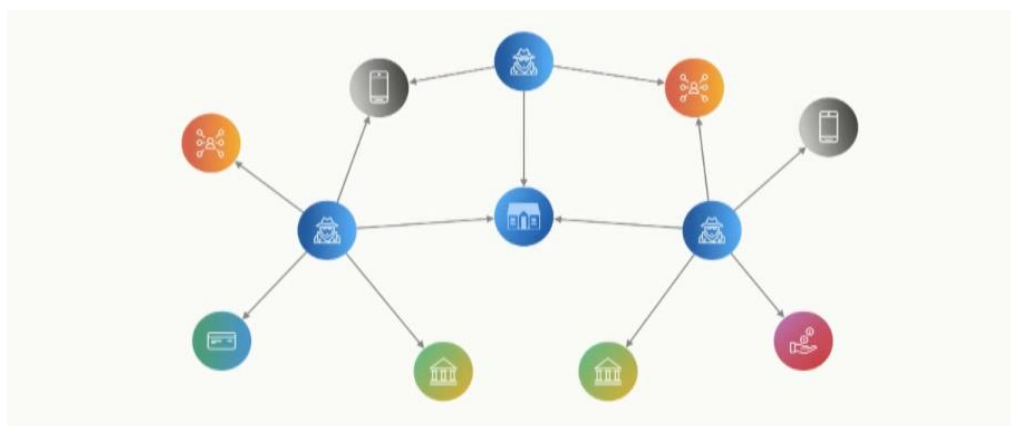
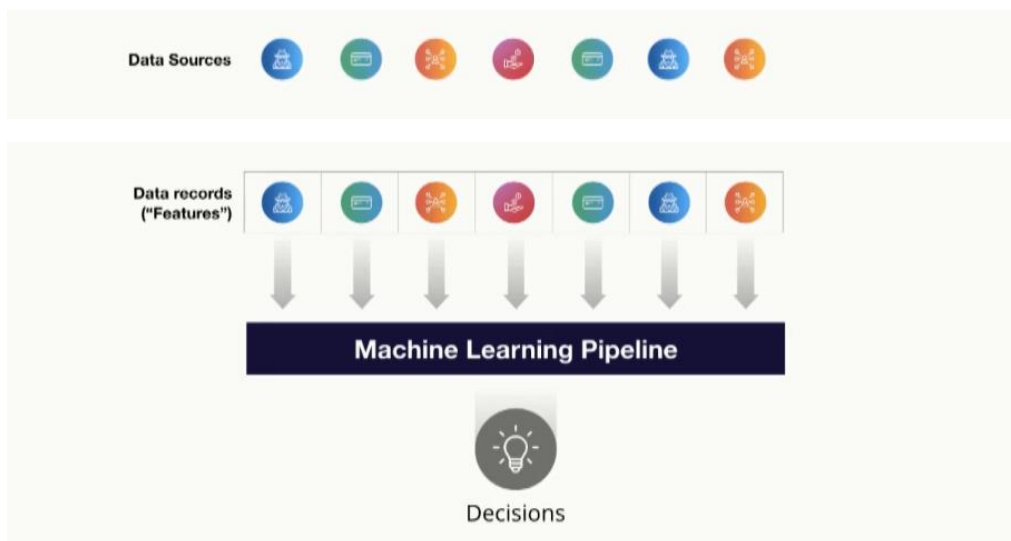
Graphs Provide Connections & Context for AI



Knowledge Graphs

Knowledge Graphs give you context about your data

What Your ML Looks Like Today

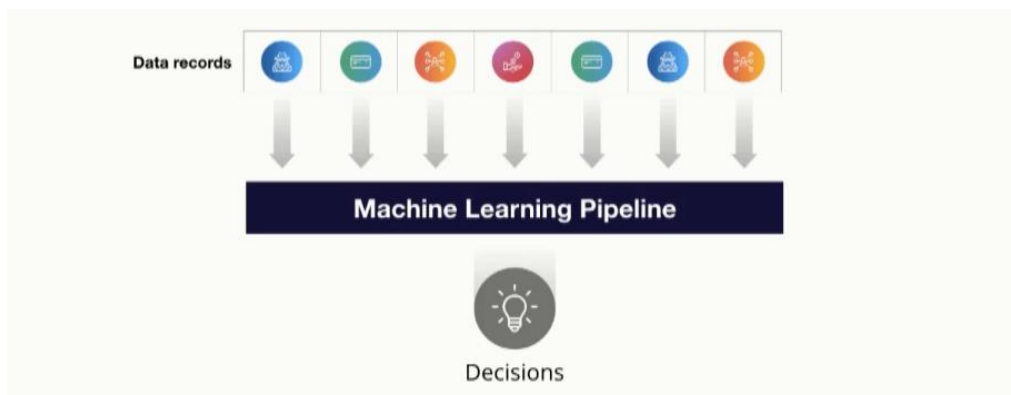


But the real world looks like above, we need to train our ML models using connections for better predictions

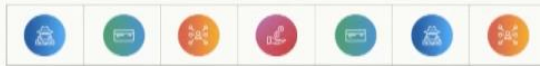


“Increasingly we're learning that you can make **better predictions about people** by getting all the information from their **friends and their friends' friends** than you can from the **information you have about the person themselves**”

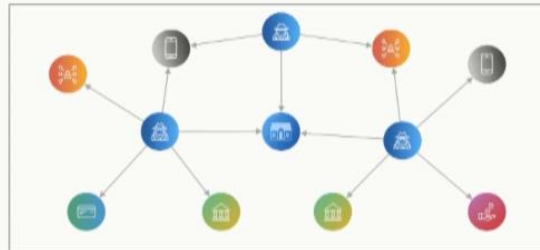
— Dr. James Fowler



Feature Extraction



We need to change from the above

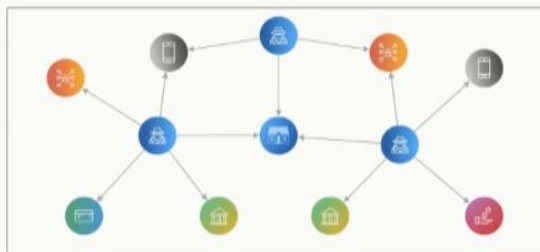


Machine Learning Pipeline



Better Decisions

Connected Feature Extraction



Four Pillars of Graph-Enhanced AI



1. Knowledge Graphs

Context for Decisions



2. Connected Feature Extraction

Context for Accuracy



3. Graph Accelerated AI

Context for Efficiency



4. AI Explainability

Context for Credibility

<http://neo4j.com>

