



**SEARCH, EXPLORE,
DISCOVER, SHARE:**

HOW NEO4J BLOOM BRINGS
YOU INTO YOUR GRAPH DATA

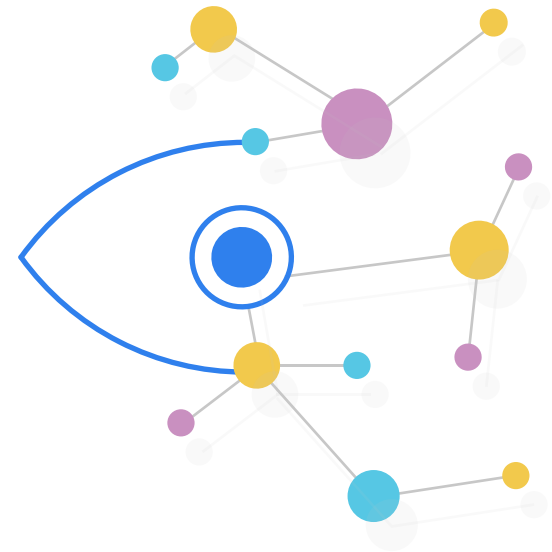
Experience Graph Data Breakthroughs

Storing your data as a graph captures all of its rich relationships and properties. Graph data structures are:

- **Intuitive:** As humans, we naturally sketch diagrams that resemble graphs to explain our ideas. Graphs are brain-friendly.
- **Innovative:** Apps based on graph data structures are transforming industries.
- **AI-ready:** Neo4j's deceptively simple native graph data model is rooted in advanced math. Your graph data is ready for AI/ML whenever you are.

But how can you explore your graph data? **Neo4j Bloom** graph data visualization illuminates your data and its connections. It gives you a satisfying way to see, enrich, analyze, and share graph data.

[What can you do with Bloom?](#)



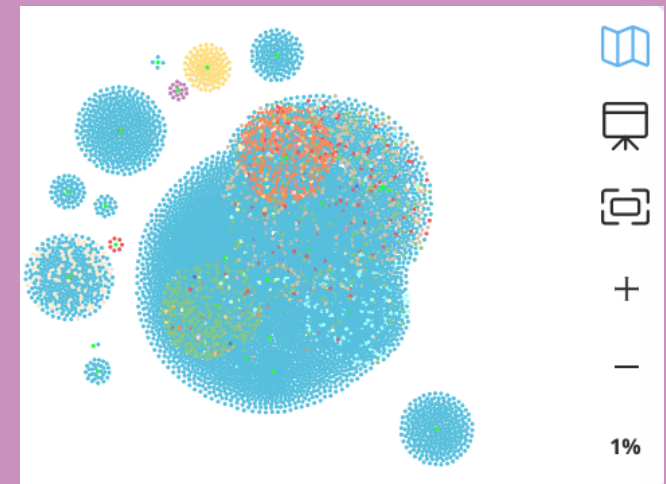
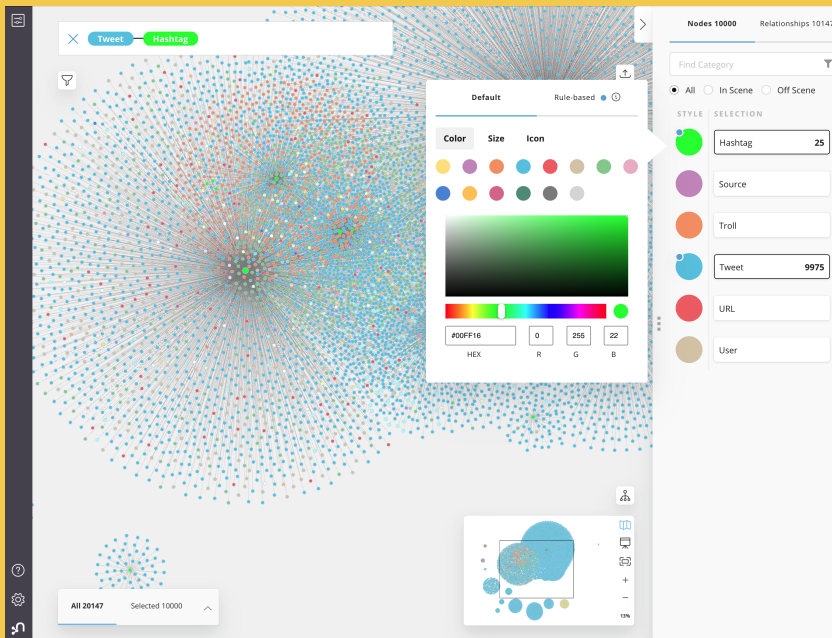
See Patterns

Graph data has patterns. What's happening over there? Why does the graph look different?

Patterns invite questions. And unusual patterns invite even more questions. When you visually explore your graph data, you increase your fluency – your ability to see what the graph data is telling you.

NBC News used Neo4j to investigate the activity of Russian Twitter trolls prior to the 2016 US Presidential Election. Here we see tweets in blue connected to hashtags in green. A map, lower right, gives the larger view of nearly 10,000 tweets.

Even the map view reveals patterns. Trolls (orange nodes) did not take over Twitter in 2016, but they amplified each other to gain attention.



Search

Build your visualization starting with a simple search that brings in just the nodes, relationships, patterns, and elements you want.

Neo4j Bloom knows all the nodes and relationships in your graph database. When you start typing, Bloom suggests more data to include.

A screenshot of a search interface showing a list of search results. The first result is 'Athletes in 1924 games' with a description: 'RETURNS ANY ATHLETES WHO PARTICIPATED IN A GAMES IN THE SPECIFIED YEAR'. Below it are other results for years 1928, 1932, 1936, 1948, and 1952, all with similar descriptions. Navigation controls like '<TAB> AUTO COMPLETE' and '<RETURN> RUN' are visible.

Create search phrases from Cypher queries.

A screenshot of the search interface. At the top, it says 'Athletes in \$year games' with a 'Delete Search phrase' button. Below is a 'Search phrase' input field containing 'Athletes in \$year games'. Underneath is a 'Description' field with the text 'Returns any Athletes who participated in a Games in the specified year'. At the bottom is a 'Cypher query' field containing the following code:

```
MATCH (g:Games)-[:PARTICIPATED_IN]-(t:Team)-[:PART_OF]-(a:Athlete)
WHERE g.year = '$year'
RETURN a
```

A screenshot of the Bloom interface showing suggestions for connected search patterns. The top suggestion is 'Product Tofu Category Product Order'. Below it are several other suggestions, including 'Product Tofu Category Product Order Customer', 'Product Tofu Category Product Order Product', 'Product Tofu Category Product Order ORDERS', and 'Product Tofu Category Product Order PURCHASED'. Each suggestion is represented by a sequence of colored nodes connected by lines.

Bloom suggests connected search patterns.

A screenshot of a graph visualization showing a network of nodes and relationships. The nodes are represented by blue circles of varying sizes, and the relationships are represented by lines connecting them. The graph is complex and multi-layered, with many nodes and a dense network of connections.

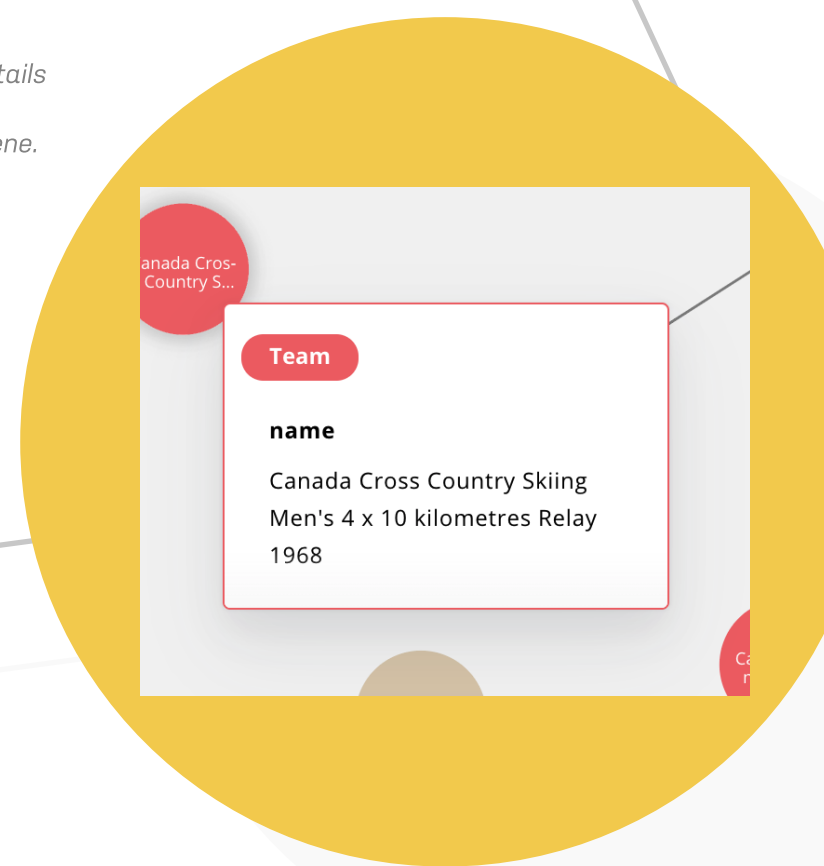
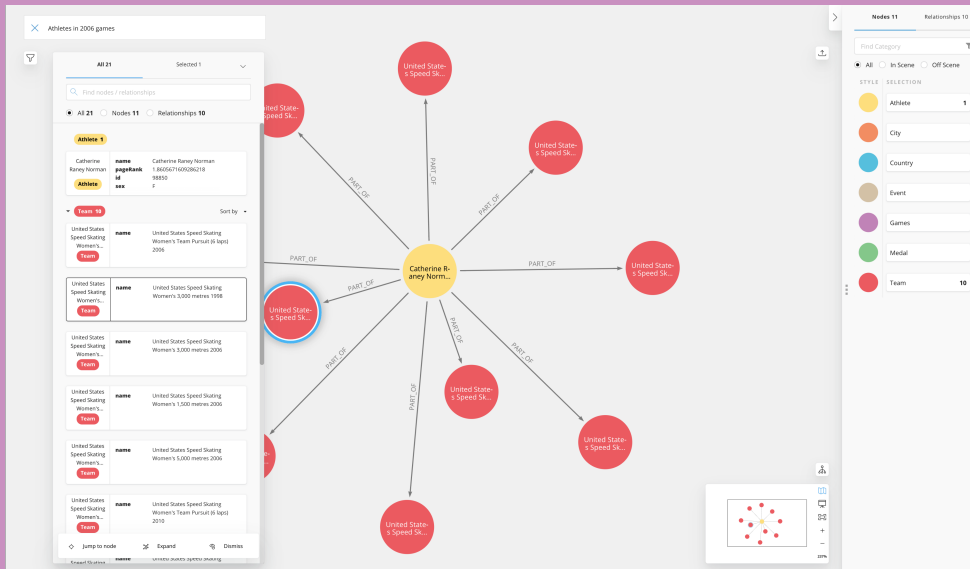
Explore

With graph data on the canvas, exploration is intuitive.

- Hover over a node for more info
- Right click for a context menu
- Show the card list to display details for all the nodes in the scene

Hover over any node
for a quick look.

The card list shows details
of all the nodes and
relationships in the scene.



Edit and Update

If you spot an error, select the node to edit its properties. Neo4j Bloom updates the database with your changes.

Edit your database directly in the Properties panel.

The screenshot displays the Neo4j Bloom interface. The central graph shows a network of nodes and relationships. A node labeled 'Tyler Barlow' is highlighted in yellow. A 'Properties' panel is open for this node, showing a table of properties. The 'amount' property is highlighted with a red box, and its value '50632.34' is being edited in a text input field. The panel also shows other properties like 'fraud', 'globalStep', 'id', 'step', and 'ts'. On the right side, there is a 'Nodes 198 Relationships 143' summary and a 'Find category' search bar. Below that, there is a 'STYLE SELECTION' panel with various categories and their counts, such as 'Bank', 'CashIn', 'CashOut', 'Client', 'Debit', 'Email', 'Merchant', 'Payment', 'Phone', 'SSN', 'Transaction', and 'Transfer'.

Property	Value
amount	50632.34
fraud	false
globalStep	116634
id	tx-116634
step	141
ts	141

Category	Count
Bank	
CashIn	
CashOut	2
Client	53
Debit	
Email	2
Merchant	1
Payment	127
Phone	2
SSN	2
Transaction	
Transfer	9

Discover

Exploration leads to discovery. As you discover more, you can enrich the visualization so that it accurately reflects the characteristics of your graph data.

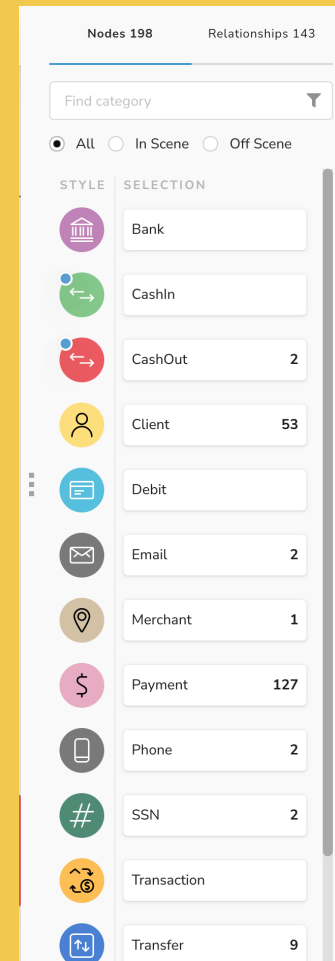
Stylize your data with colors, rule-based sizing, and icons.

Enrich

Teach the data to speak, visually.

With an infinite array of possibilities to stylize your graph with colors and sizing options, users can customize visualizations with millions of colors and property-based styles. Add icons to make graph visualizations even more intuitive.

Data scientists particularly benefit from enriching their data using rule-based styling, often including it as part of their workflow.



Share

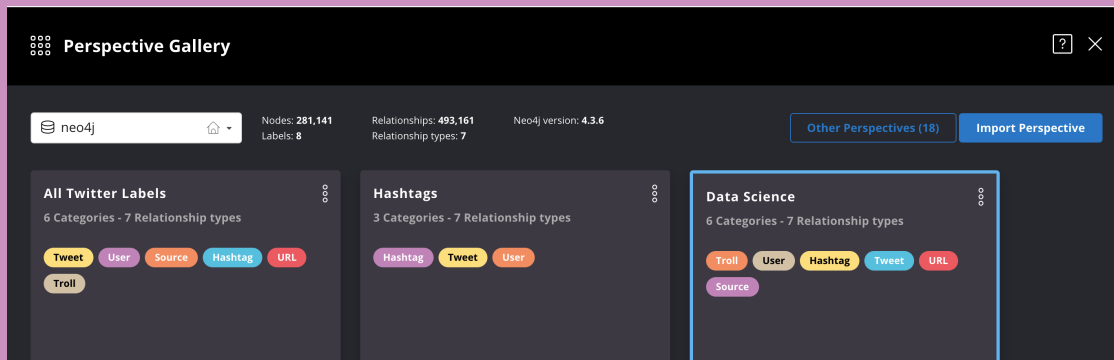
Developers can bring data into Neo4j Bloom and share their vision with others. Build prototypes of applications or show a domain expert how to explore their connected data in Neo4j Bloom.



Empower

Curate experiences for domain specialists and analysts.

Create perspectives – a view into the graph tailored for specific roles or contexts – and share them.



Three perspectives for the Twitter dataset: one with all the data, one focused on hashtags, and one tailored for data scientists.

What Will *You* Do with Bloom?

Get started with graph data visualization today by spinning up an instance of [AuraDB](#) or starting a [Neo4j Bloom sandbox](#).

Learn more at neo4j.com/bloom.



The ability to take data – to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it is going to be a hugely important skill in the next decades.

- *Hal Varian, Chief Economist, Google*

Neo4j is the world's leading graph data platform. We help organizations – including Comcast, ICIJ, NASA, UBS, and Volvo Cars – capture the rich context of the real world that exists in their data to solve challenges of any size and scale. Our customers transform their industries by curbing financial fraud and cybercrime, optimizing global networks, accelerating breakthrough research, and providing better recommendations. Neo4j delivers real-time transaction processing, advanced AI/ML, intuitive data visualization, and more. Find us at neo4j.com and follow us at [@Neo4j](#).

Questions about Neo4j?
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