ADC-D1

Workhuman iQ

Building a Culture of Connection using Amazon Neptune

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AWS

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Agenda

Workhuman

Workhuman iQ

Organizational Network Analysis

DynamoDB or not DynamoDB

Our path to Amazon Neptune

What’s next?

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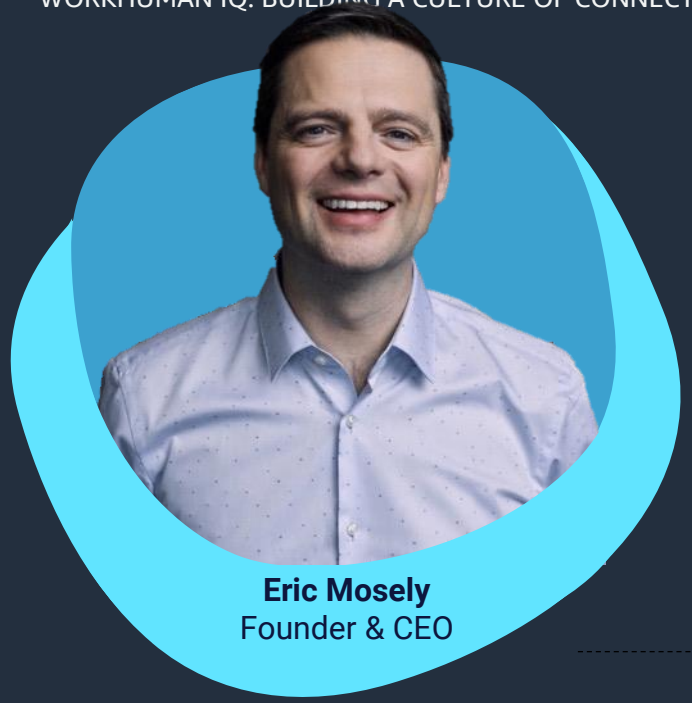

Eric Mosely
Founder & CEO

Founded

1999

24 years of bringing humanity to the workplace

Employees

1,000+

Here to help you build an engaged and thriving workforce

Cashflow positive for 15 years
Highly profitable and growing for 10 years

Why leading organizations choose Workhuman:

- **Global scale & capability**
- **Pioneering product innovation**
- **Guaranteed client success**
- **Military-grade security**
- **Thought leadership & expert guidance**

Trusted by the world's leading brands:

- **7** of the top **10** biopharma orgs
- **4** of the top **10** consultancies
- **5** of the top **10** media companies
- **3** of the top **10** tech companies

+ hundreds of healthcare, financial services, insurance, energy, and industrials companies around the world

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workhuman cloud

Social Recognition®

Celebrations®

Conversations®

FEATURED CAPABILITIES

Analytics & Reporting
Advanced people and performance data

Global Redemption Platform
Robust e-commerce for gift cards, merchandise, & experiences

Peer-to-Peer
Socialize recognition and your values across the enterprise

Bias Detection
A.I. and NLP sentiment analysis with real-time coaching

Generative AI
AI assistance to help compose impactful award messages

POPULAR INTEGRATIONS

slack workday. Microsoft Teams Microsoft Outlook Microsoft Edge

THE DIFFERENCE MAKERS

Global Scale **Innovation** **ROI** **Guidance** **Security**

"The recognition data shows where people are collaborating, where leaders are recognizing their teams, and where people maybe have an opportunity to recognize more. So, we can target our efforts and help those leaders be even better leaders and help them drive their teams to new heights."

Michelle Hecht

EVP, Strategic Communications, Citizens Bank

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iQ – our newest application

20+ years of relationship data

What are your people congratulating each other for?

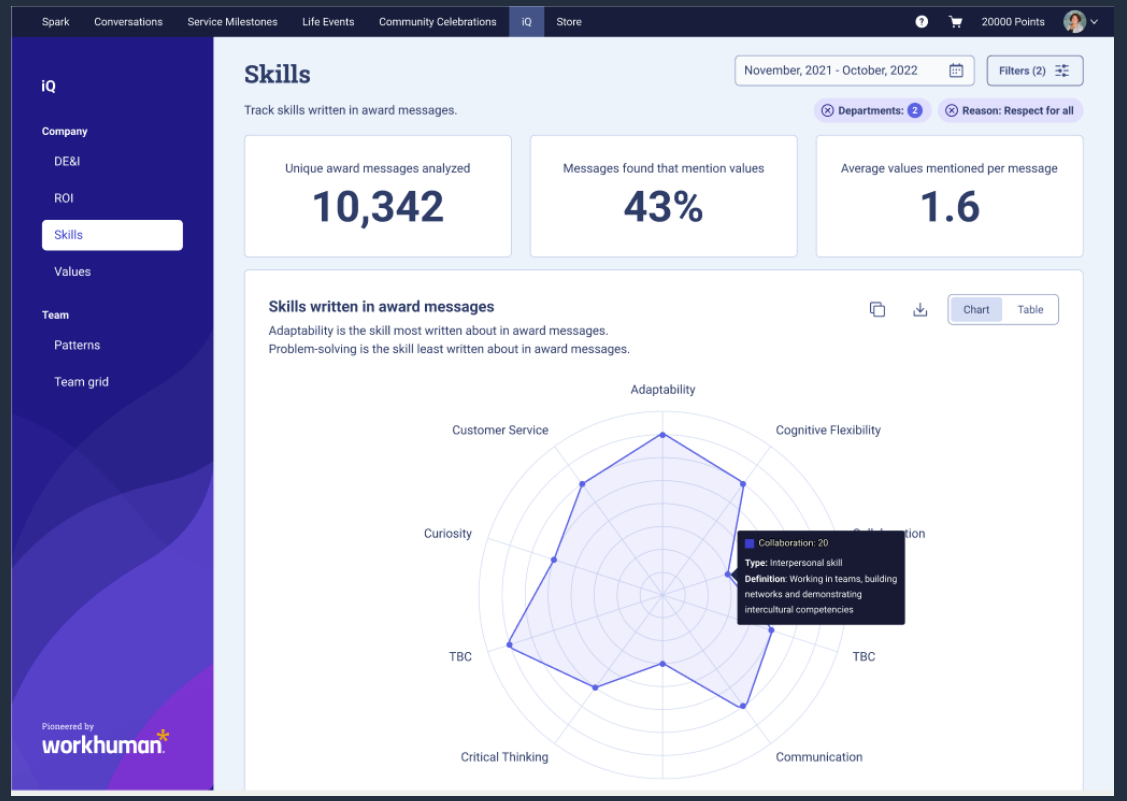
Do these map onto your organization's cultural values?

What human skills do people recognize in your organization?

What are the observable differentiating factors in high-performing teams?

How can you retain staff through turbulent times?

ROI of Social Recognition



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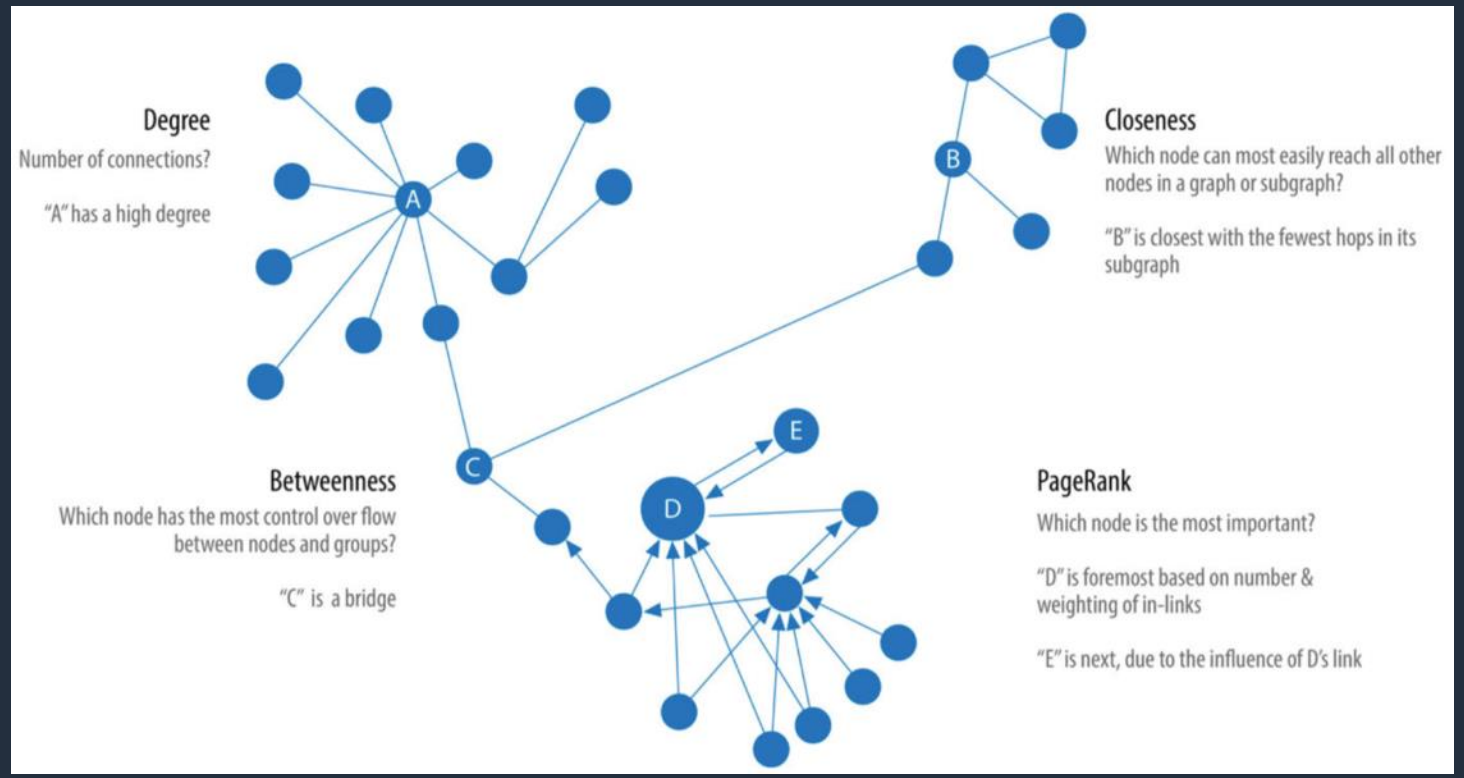
Organizational Network Analysis

How does work get done in an organization?

Who are the greatest drivers of your culture?

Who acts as influencers across departments?

What does collaboration look like mapped against performance data?



Picture credit: O'Reilly Graph Algorithms Neo4j Edition

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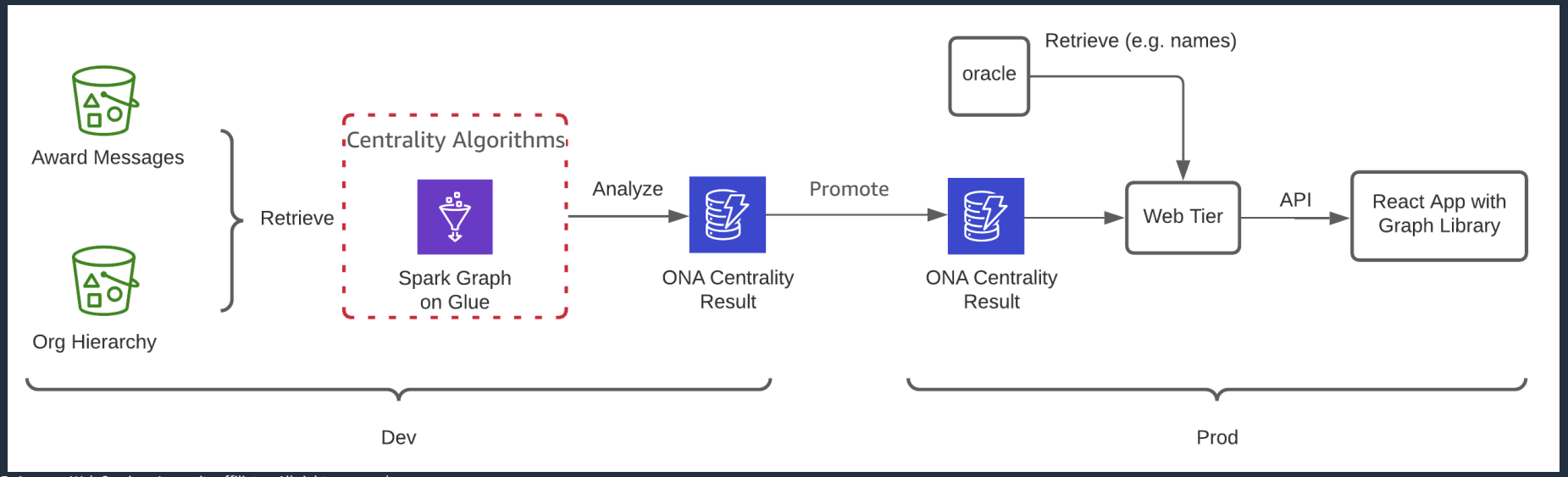
NoSQL Solution

Preprocess centrality algorithms

- Reduce computation time
- Increase front-end performance
- Maintain our technology footprint.

Poor problem-solution fit

- Highly-connected data
- Complex data model
- High memory usage



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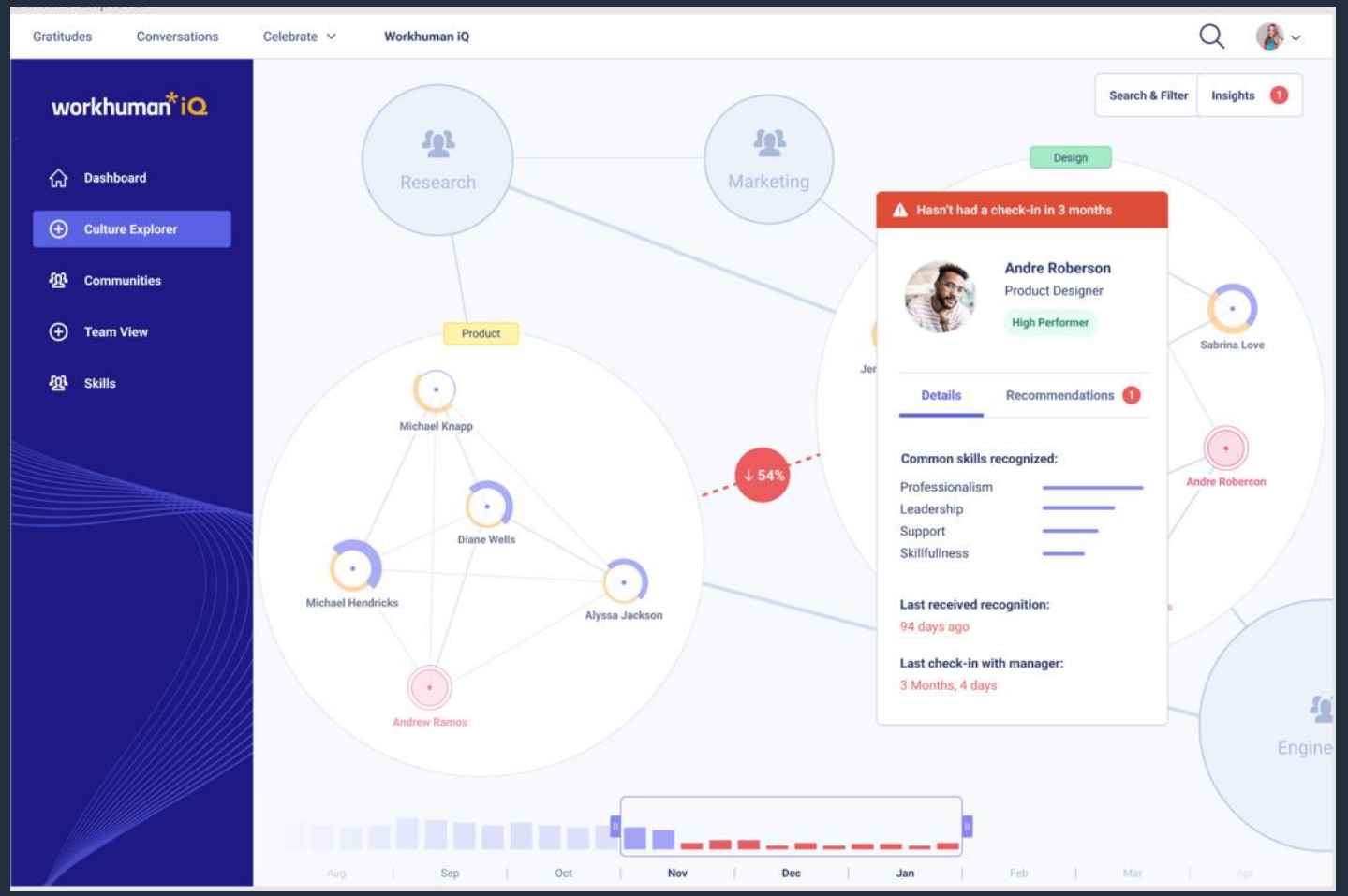
Graph Database

Algorithmic support

- Collaboration patterns
- Community detection
- Graph traversal

Search

Non-functional requirements



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Graph Database comparison

Arango DB

Property Graph

DBAAS in AWS

Native text search support

Time-series functionality

Native algorithm support

Amazon Neptune

Property/RDF Graph

Native AWS support - NFRs, Serverless

OpenSearch integration

Neptune Streams -> Amazon Timestream

AWS SDK for Pandas

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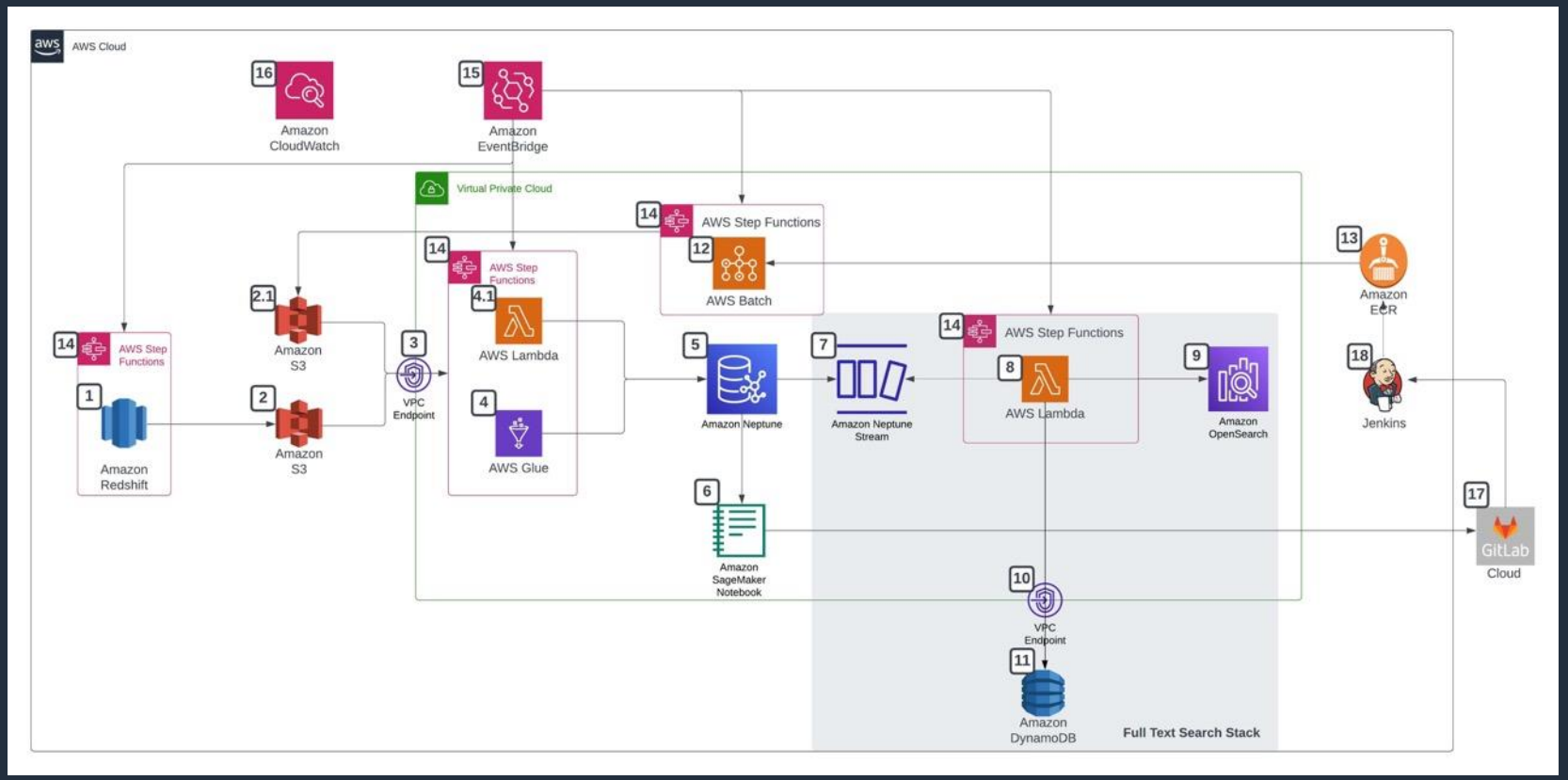
AWS to the rescue!

FOUR DAY ENGAGEMENT



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What’s next?

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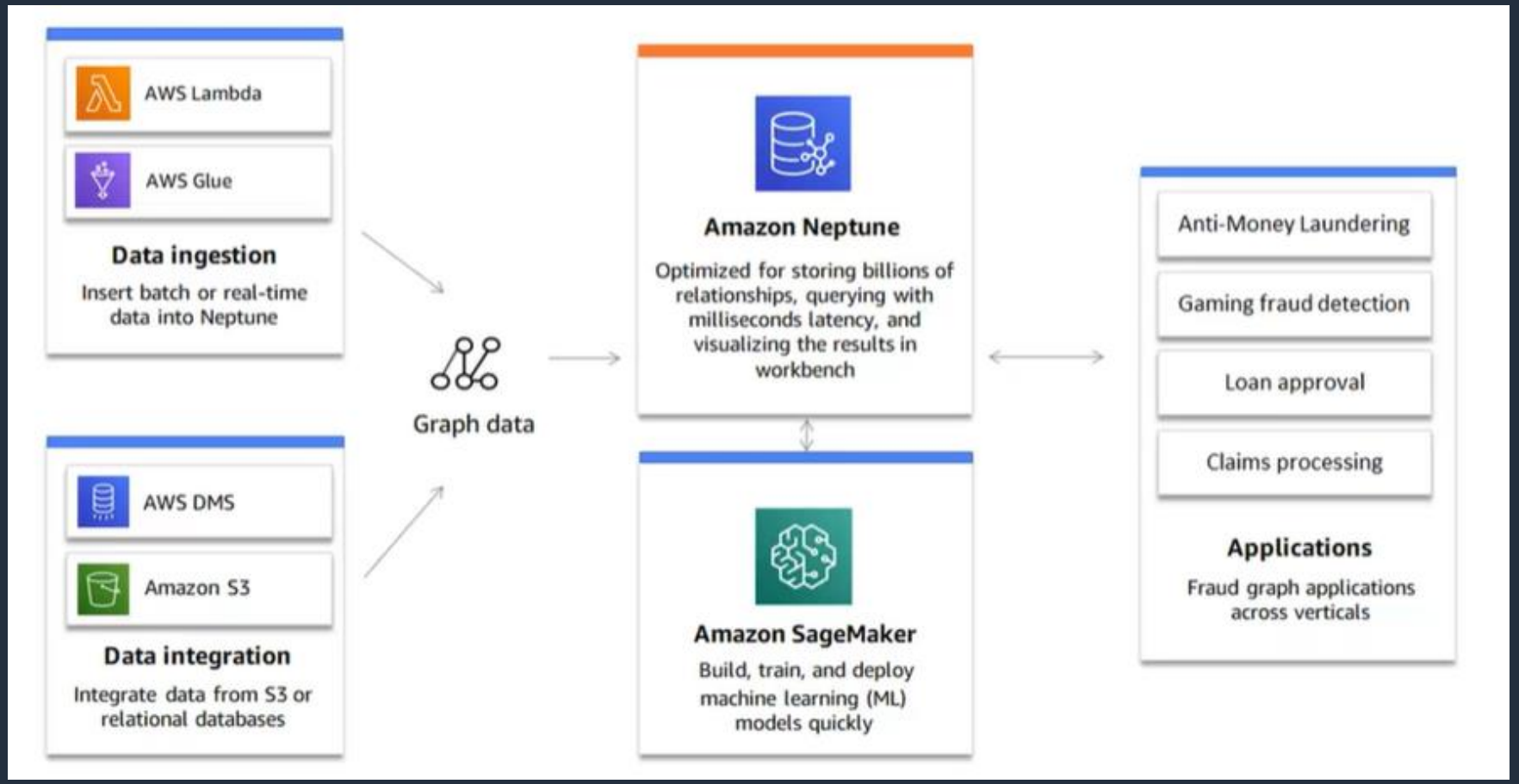
Neptune Fraud Detection Use Case



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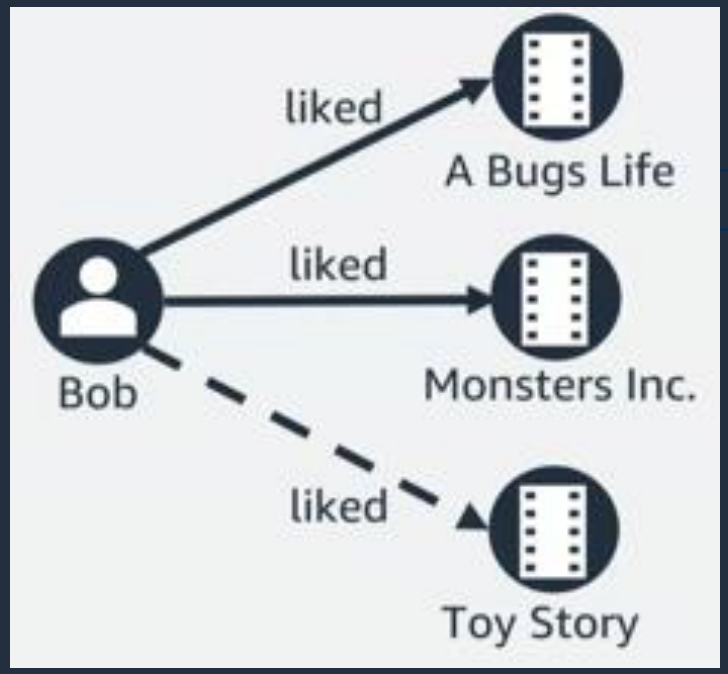
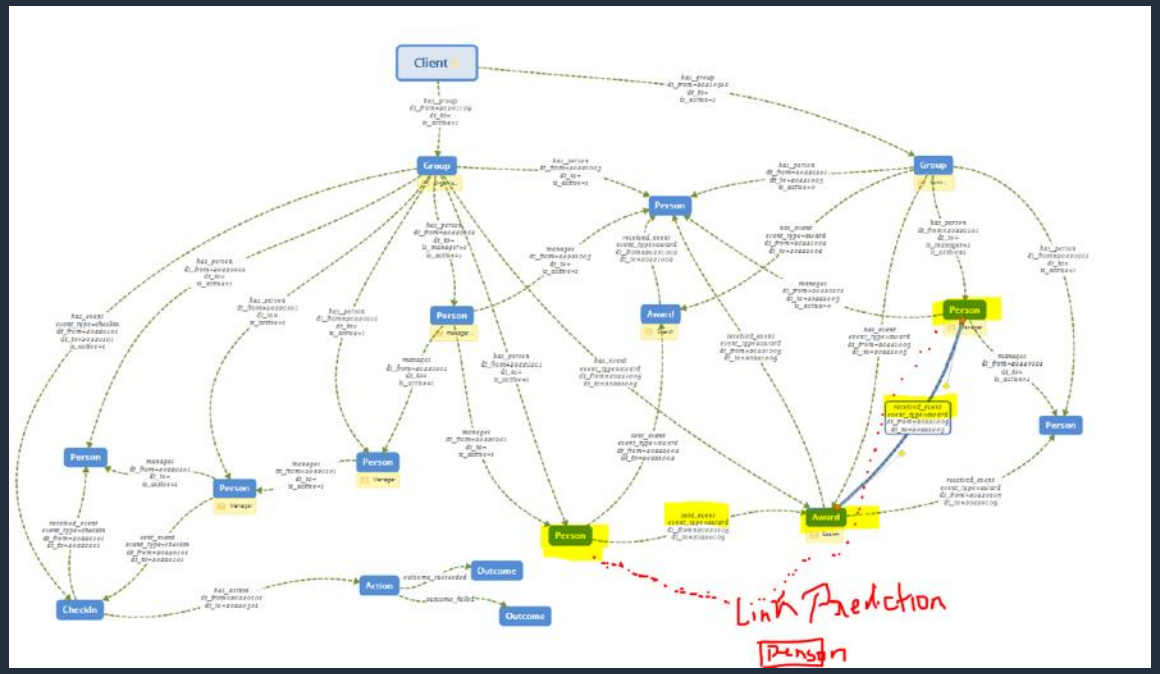
Amazon Neptune + AI (Graph Neural Network)





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