

Graph Neural Networks in AllegroGraph – Video

Enterprises are subscribed to the power of modeling data as a graph and the importance of using Knowledge Graphs for customer 360 and beyond. The ability to explain the results of AI models, and produce consistent results from them, involves modeling real-world events with the adaptive schema consistently provided via Knowledge Graphs.

Probably the most important reason for building Knowledge Graphs has been to answer the age old question: “What is going to happen next?” Given the data, relationships, and timelines we know about a customer, patient, product, etc. (“The Entity of Interest”), how can we confidently predict the most likely next event.

For example, in healthcare, what is the outcome for this patient given the sequence of previous diseases, medications, and procedures. For manufacturers, what is going to require repair next in this aircraft or some other point in the supply chain.

Machine Learning and more recently, Graph Neural Networks (GNNs) have emerged as a mature AI approach used by companies for Knowledge Graph enrichment. GNNs enhance neural network methods by processing graph data through rounds of message passing, as such, the nodes know more about their own features as well as neighbor nodes. This creates an even more accurate representation of the entire graph network.

In this presentation we describe how to use graph embeddings and regular recurrent neural networks to predict events via Graph Neural Networks. We will also demonstrate creating a GNN in the context of a Knowledge Graph for building event predictions.

For more info – <https://github.com/franzinc/agraph-examples>

Franz Inc. Named to Database Trends and Applications Top 100 Companies

Franz Inc. has been named to the “Top 100 Companies That Matter Most in Data” by Database Trends and Applications.

DBTA 100 Announcement

DBTA View from the Top

AllegroGraph provides organizations with essential Knowledge Graph solutions, including Graph Neural Networks, Graph Virtualization, Apache Spark graph analytics, and streaming graph pipelines. These capabilities exemplify AllegroGraph’s leadership in empowering data analytics professionals to derive business value out of Knowledge Graphs.

“In today’s data-driven environment, opportunities abound for innovative companies. However, the ability to create new products and deal effectively with competitive issues requires strong data management and analytics capabilities,” stated DBTA Group Publisher Tom Hogan Jr. “The message is clear: Business leaders understand that creating resilient IT systems and pipelines for high quality, trustworthy data moving into

employees' workflows for decision making is essential. Covering the wide range of established to cutting edge, the DBTA 100 is a list of IT hardware, software, and service providers actively working to enable their customers' data-driven success."

"Franz Inc. is continually innovating and we are honored to receive this acknowledgement for our efforts in setting the pace for Knowledge Graph Solutions," said Dr. Jans Aasman, CEO, Franz Inc. "We are seeing demand for Intelligent Data Fabrics take off across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for Data Fabric solutions. AllegroGraph with FedShard uniquely provides companies with the foundational environment for delivering Graph based Knowledge Management solutions with the ability to continually enrich and contextualize the understanding of data."

SCALE 2022 – Southern California Linux Expo

The Southern California Linux Expo's ("SCALE") mission is to provide educational opportunities on the topic of Open Source software. Open Source software is any software that meets the litmus test of the OSI (Open Source Initiative). Examples of OSS are GNU/Linux and the various BSD operating systems, and applications such as LibreOffice and Firefox.



19x

Los Angeles, CA
July 2022



Dr. Jans Aasman, CEO, Franz Inc.

Dr. Jans Aasman, CEO, Franz Inc. will be presenting:

**Enrich Your Enterprise Knowledge Graph with Linked Open Data
via JSON-LD**

IEEE – ICHI – Healthcare Informatics



ICHI 2022 is a premier community forum concerned with the application of computer science, information science, data

science, and informatics principles, as well as information technology, and communication science and technology to address problems and support research in healthcare, medicine, life science, public health, and everyday wellness.

Franz Inc. presented on June 14th – **Entity Event Knowledge Graph for Powerful Health Informatics**

Download Franz's IEEE Publication – Entity Event Knowledge Graph for Powerful Health Informatics.

Conference Website

10:30 AM – 12:00 PM @Ballroom

Industry Session

S IMI-CDE: an interactive interface for collaborative mapping of study variables to common data elements

Shiqiang Tao, Wei-Chun Chou, Jianfu Li, Jingcheng Du, Pritham Ram, Rashmie Abeysinghe, Xiaoqian Jiang, Peter W Rose, Lucile Chen, Michael Luo, Yu and Guo-Qiang Zhang

S Entity Event Knowledge Graph for Powerful Health Informatics

Ravi Bajracharya, Richard Wallace, Jans Aasman and Parsa Mirhaji

S RWD Analytics Engineering, Bridging the Gap between IT and Data Science

Andrew Nguyen

S LANN: an integrated online annotation tool for information extraction

Jingqi Wang, Yaoyun Zhang, Bin Lin, Huy Anh Pham, Long He, Jingcheng Du and Frank Manion

S Improving healthcare workforce efficiency using machine learning and predictive analytics

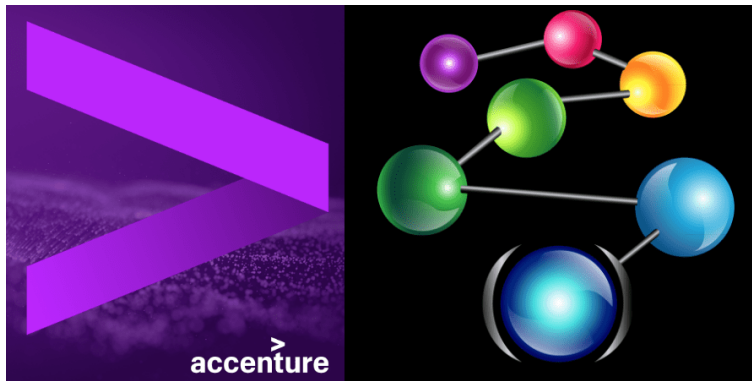
Daniel Quest

S RecordTime – An Internally-Developed Web Application to Ease the Pain of Reviewing PDF Medical Records

Kevin Peterson

The Knowledge Graph Conference 2022

Knowledge First Design For Dynamic Intelligent Contact Centers, And Beyond



Accenture (NYSE: ACN) recently acquired N3 because Fortune 100 Companies were selecting N3 as their intelligent contact center of choice. N3's rise in visibility is due to the tangible ROI results delivered with "Mia" – N3's groundbreaking Market Intelligence Assistant. Mia, is an always-on AI and machine learning Knowledge Graph platform that aggregates insights and delivers the most important, contextually relevant insights to the Sales or Customer Success Advisor during an active conversation in order to facilitate successful sales outcomes.

Accenture's Slides

Franz's Slides

Presentation Abstract

Shannon Copeland – Accenture



The graphic features a dark blue background with a white geometric pattern of interconnected lines. In the top right corner, the text "KGC" is displayed in large, white, outlined letters, followed by "The Knowledge Graph Conference" in smaller white text. On the left side, there is a circular portrait of Shannon Copeland, a man with short brown hair, smiling, wearing a dark suit and a light blue shirt. To the right of the portrait, the text "Shannon Copeland" is written in bold white font, followed by "Managing Director" and "ACCENTURE" in smaller white font. Below the portrait, the title "Knowledge First Design for Dynamic Intelligent Contact Centers, and Beyond" is written in bold white font. In the bottom left corner, the Accenture logo is shown, consisting of the word "accenture" in white lowercase letters with a small purple chevron above the 't'. In the bottom right corner, the text "Join us for the #KGConference MAY 2-6" is written in white, with "MAY 2-6" in bold. Below this, the text "Live In Cornell & Globally Online" is written in a smaller white font.

KGC The Knowledge Graph Conference

Shannon Copeland
Managing Director
ACCENTURE

**Knowledge First Design for
Dynamic Intelligent Contact
Centers, and Beyond**

Join us for the #KGConference
MAY 2-6

accenture

Live In Cornell & Globally Online

100 Companies That Matter – Franz Inc.

Franz Inc. Named to KMWorld's – "100 Companies That Matter" in Knowledge Management

Franz Inc. has been named to the 100 Companies That Matter by KMWorld for 2022. Additionally, AllegroGraph was recently named "Best Knowledge Graph" by KMWorld Readers' Choice award voting.



"While digital transformation was well underway more than 2 years ago, the trend accelerated rapidly when the pandemic hit. It's true that the tumultuous business climate continues unabated, but smart, knowledge-driven organizations have been successfully seizing products and services that help them identify new opportunities, improve customer service, modernize operations, thwart fraudulent activity, make the right information available to staff members who need it, and, when possible, enhance decision making with real-time information," said Tom Hogan, Group Publisher, KMWorld. "Against that reality, KMWorld presents the KMWorld 100 for 2022, a list of inventive knowledge management companies whose offerings are targeted at helping organizations expand their use of information and knowledge and accelerate their growth."

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critical foundation for Data Fabric solutions. AllegroGraph with FedShard uniquely provides companies with the foundational environment for delivering Graph based AI solutions with the ability to continually enrich and contextualize the understanding of data.”

[Read more about the award.](#)

Knowledge Graph Standards in Ambient Computing

By Jans Aasman, CEO

Ambient computing is a broad term that describes an environment of smart devices, data, AI decisions, and human activity that enables computer actions alongside everyday life, without the need for direct human commands or intervention. Ambient computing represents an unparalleled opportunity to enhance almost every sphere of society – from the professional to the personal. And in my opinion, it is also the ultimate use case for which semantic knowledge graphs were created.



Dr. Jans Aasman, CEO, Franz Inc.

With knowledge graph standards, ambient computing is no longer a mere ideal or science fiction fantasy on television or in books. It's a real computational model involving Internet of Things (IoT) endpoints, AI analytics, machine reasoning, orchestration, and low latent event processing at the edge to anticipate users' desires and perform timely

action – without explicit commands.

For example, a motion detector might identify a homeowner's return from work at night, open the garage accordingly, and trigger a thermostat to increase the air conditioning to a desired temperature while smart gadgets in the kitchen begin preheating the oven for dinner.

Each of these actions happens without someone deliberately engaging with these disparate systems. One's interactions with his or her environment dictate which events occur, relegating the computational process to the background to benefit humans.

Different vendors currently have varying degrees of ambient computing in place. Amazon has several household devices that interact with Alexa, for example. Still, the larger vision of ambient computing can't be restricted to one vendor and must include timely data exchanges between vendors, products, and operating systems.

Doing so requires systemic interoperability, the likes of which the universal standards powering semantic graph technology have provided for years. This smart data approach is integral to the mainstream adoption of ambient computing, which is impending.

Read the full article at [Dataversity](#).

Authentic Meets Artificial – The New Intelligence – DM

Radio Broadcast

Understanding the world around us increasingly involves Artificial Intelligence. Once the stuff of elite corporations, the barrier has now dropped substantially, and practically anyone can get in on the game!

Check out this episode of DMRadio to learn more, as Host @Eric_Kavanagh interviews Jans Aasman, Franz Inc. and Robert Nishihara, Anyscale.



[Listen to the recording.](#)

AllegroGraph Named 2022 “Trend Setter”

AllegroGraph Named 2022 “Trend Setter” by Database Trends and Applications

AllegroGraph has been named a 2022 Trend Setting Product by Database Trends and Applications. Additionally, AllegroGraph was recently named “Best Knowledge Graph” by KMWorld Readers’ Choice award voting.



“The world is changing rapidly, and so are enterprise data requirements. Whether it is anticipating supply chain

problems, addressing customer concerns with agility, or identifying new opportunities and pouncing quickly, the ability to achieve a comprehensive view of all available information for real-time decision making has become a strong requirement,” said Thomas Hogan, Group Publisher of Database Trends and Applications. “That is why it is more important than ever to identify products and services that help to deliver results. This list focuses on products that represent a commitment to innovation and provide organizations with tools to address rapidly evolving market requirements.”

“Franz Inc. is continually innovating and we are honored to receive this acknowledgement for our efforts in setting the pace for Knowledge Graph Solutions,” said Dr. Jans Aasman, CEO, Franz Inc. “We are seeing demand for Intelligent Data Fabrics take off across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for Data Fabric solutions. AllegroGraph with FedShard uniquely provides companies with the foundational environment for delivering Graph based AI solutions with the ability to continually enrich and contextualize the understanding of data.”

[Read more about the award.](#)

Looking at KM for futuristic

organizations & digital intelligence at KMWorld Connect 2021

At KMWorld Connect 2021, three knowledge management industry leaders shared their views of the future of knowledge management and the technologies and trends that will create high-value for organizations. Hariprasad Reddy, vice president and chief quality officer, Wipro, Jans Aasman, CEO, Franz Inc., and John Chmaj, senior director, product strategy, knowledge management, Verint, each reflected on how knowledge management requirements are changing and the technologies and services that are addressing those needs best.

First, Reddy looked at various technologies and how they streamline the knowledge flow across knowledge islands by predicting the knowledge needs of individuals, including how AR/VR technologies help an individual to learn the knowledge of working in the real scenarios which strengthens flawless execution. Wipro's vision is to harmonize and evangelize a nimble-footed knowledge ecosystem to enhance customer trust and business value powered through innovation, collaboration, deep industry insights, and digital transformation. Reddy noted there has been a paradigm shift from document repository to a focus on digital intelligence for business excellence through knowledge flow and collaboration, bringing knowledge to knowledge seekers who may be customers or employees.

In his fast-paced talk, Reddy touched on the role of cognitive search, knowledge push through prediction, AR/VR kits for developing the right software, expert connect, self-healing of service management incidents through AI- based KEDB (known error database), knowledge genies, and gamified knowledge-capturing mechanisms.

The benefits delivered for high adoption of digital intelligence at the account level include higher customer satisfaction level, and that accounts having high digital intelligence index have proven higher productivity. As an example of the positive outcomes achieved through greater digital experience, Reddy said the influence of digital intelligence on ticket resolution is

- 31% reduction in average ticket resolution time
- 16% increase in number of tickets handled
- 420 basis points improvement in FCR (first contact resolution)
- 12% reduction in AHT (average handle time)
- And 100% mandatory training compliance

Aasman added to the discussion by explaining what data fabrics are, how they relate to semantics and knowledge graphs, how data fabrics offer a cohesive means of integrating and sharing data regardless of differences in format, technology, or location. According Aasman, they are considered the most mature means of data integration because they organize the exchange of semi-structured, unstructured, and structured data—while offering a single access point to all data.

Data fabrics are an evolution of data lakes, said Aasman, noting that data lakes have not reached the level of success that was promised because there was no systemic metadata around the data, no data cataloging, provenance, or quality control. Aasman said the top answer on Google now for the difference between a data lake and data fabric is that “data fabrics essentially add a semantic layer to data lakes to smooth the process of modeling data infrastructure, reliability and governance. Data lakes serve as a central repository for storing copies of raw data sourced from several and often thousands of operational systems.”

Knowledge graphs are essential for governing content in terms of access management, data provenance, and data quality while

unifying the terminology used to describe these assets across business lines within an organization. Data fabrics and knowledge graphs have a unique, symbiotic relationship because they substantially streamline the processes to extract data from the myriad sources that populate these platforms.

Knowledge graphs are key to providing fundamental capabilities by enabling data fabrics to accomplish this objective, said Aasman

A mature data fabric uses a knowledge graph that:

- provides data catalogs for the data lakes and silos,
- uses ontologies to describe core business objects and the relationships between objects,
- uses ontologies and taxonomies to help with harmonizing data over silos, and
- is the underpinning for recommendation engines, machine learning, and other smart analytics.

Aasman concluded his talk with a description of an implementation at Montefiore Medical Center using a data fabric supported by Franz's AllegroGraph technology.

Rounding out the discussion, Chmaj weighed in on high-value, real-world cases and best practices where AI and automation technologies can be utilized in targeted ways to drive efficient content curation and proactive knowledge delivery. He explored how these capabilities provide value for support and service organizations seeking to scale and improve KM initiatives.

KM is evolving as part of a digital first transformation as companies reconsider the future of work with work-from-home acceleration, digital transformation, demand for open technology platforms, more self-service, expectations for real time, contextual answers, and all powered by AI and automation.

Key requirements for digital engagement today, said Chmaj, are:

- Personalization: with experiences and knowledge formats for each user and touchpoint,
- Integration: with touchpoints, tools, and interactions to support evolving user journeys
- Automation: with any and all actions inferred by context and enabled through background intelligence

Digital-first platforms orchestrate and manage journeys, said Chmaj, noting that Verint offers an omnichannel experience that also enables knowledge to be accessed and managed from other Verint applications, such as:

- Accessing knowledge while handling digital interactions with engagement orchestration
- Getting real time knowledge suggestions driven by real-time speech analytics
- Surfacing knowledge in the self-service solutions including intelligent virtual assistant and community
- Increasing compliance through knowledge use with performance management and quality management

KMWorld Connect 2021 is going on this week, November 15-18, with workshops on Friday, November 19. On-demand replays of sessions will be available for a limited time to registered attendees and many presenters are also making their slide decks available through the conference portal. For more information, go to www.kmworld.com/conference/2021.

Access to session archives will be available on or about November 29, 2021, so be sure to check back for on-demand replays.

Full Article.