AllegroGraph Named to 100 Companies That Matter Most in Data

Franz Inc. Acknowledged as a Leader for Knowledge Graph Solutions

Lafayette, Calif., June 23, 2020 – Franz Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology for Knowledge Graph Solutions, today announced that it has been named to The 100 Companies That Matter in Data by Database Trends and Applications. The annual list reflects the urgency felt among many organizations to provide a timely flow of targeted information. Among the more prominent initiatives is the use of AI and cognitive computing, as well as related capabilities such as machine learning, natural language processing, and text analytics. This list recognizes companies based on their presence, execution, vision and innovation in delivering products and services to the marketplace.

"We're excited to announce our eighth annual list, as the industry continues to grow and evolve," remarked Thomas Hogan, Group Publisher at Database Trends and Applications. "Now, more than ever, businesses are looking for ways transform how they operate and deliver value to customers with greater agility, efficiency and innovation. This list seeks to highlight those companies that have been successful in establishing themselves as unique resources for data professionals and stakeholders."

"We are honored to receive this acknowledgement for our efforts in delivering Enterprise Knowledge Graph Solutions," said Dr. Jans Aasman, CEO, Franz Inc. "In the past year, we have seen demand for Enterprise Knowledge Graphs take off

across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for artificial intelligence applications and predictive analytics.

Our recent launch of AllegroGraph 7 with FedShard, a breakthrough that allows infinite data integration to unify all data and siloed knowledge into an Entity-Event Knowledge Graph solution will catalyze Knowledge Graph deployments across the Enterprise."

Gartner recently released a report "How to Build Knowledge Graphs That Enable AI-Driven Enterprise Applications" and have previously stated, "The application of graph processing and graph databases will grow at 100 percent annually through 2022 to continuously accelerate data preparation and enable more complex and adaptive data science." To that end, Gartner named graph analytics as a "Top 10 Data and Analytics Trend" to solve critical business priorities. (*Source: Gartner, Top 10 Data and Analytics Trends, November 5, 2019)*.

"Graph databases and knowledge graphs are now viewed as a must-have by enterprises serious about leveraging AI and predictive analytics within their organization," said Dr. Aasman "We are working with organizations across a broad range of industries to deploy large-scale, high-performance Entity-Event Knowledge Graphs that serve as the foundation for AI-driven applications for personalized medicine, predictive call centers, digital twins for IoT, predictive supply chain management and domain-specific Q&A applications – just to name a few."

Forrester Shortlists AllegroGraph

AllegroGraph was shortlisted in the February 3, 2020 Forrester Now Tech: Graph Data Platforms, Q1 2020 report, which recommends that organizations "Use graph data platforms to accelerate connected-data initiatives." Forrester states, "You

can use graph data platforms to become significantly more productive, deliver accurate customer recommendations, and quickly make connections to related data."

Bloor Research covers AllegroGraph with FedShard

Bloor Research Analyst, Daniel Howard noted "With the 7.0 release of AllegroGraph, arguably the most compelling new capability is its ability to create what Franz refers to as "Entity-Event Knowledge Graphs" (or EEKGs) via its patented FedShard technology." Mr. Howard goes on to state "Franz clearly considers this a major release for AllegroGraph. Certainly, the introduction of an explicit entity-event graph is not something I've seen before. The newly introduced text to speech capabilities also seem highly promising."

AllegroGraph Named to KMWorld's 100 Companies That Matter in Knowledge Management

AllegroGraph was also recently named to KMWorld's 100 Companies That Matter in Knowledge Management. The KMWorld 100 showcases organizations that are advancing their products and capabilities to meet changing requirements in Knowledge Management.

Franz Knowledge Graph Technology and Services

Franz's Knowledge Graph Solution includes both technology and services for building industrial strength Entity-Event Knowledge Graphs based on best-of-class tools, products, knowledge, skills and experience. At the core of the solution is Franz's graph database technology, AllegroGraph with FedShard, which is utilized by dozens of the top F500 companies worldwide and enables businesses to extract sophisticated decision insights and predictive analytics from highly complex, distributed data that cannot be uncovered with conventional databases.

Franz delivers the expertise for designing ontology and

taxonomy-based solutions by utilizing standards-based development processes and tools. Franz also offers data integration services from siloed data using W3C industry standard semantics, which can then be continually integrated with information that comes from other data sources. In addition, the Franz data science team provides expertise in custom algorithms to maximize data analytics and uncover hidden knowledge.

Answering the Question Why: Explainable AI

The statistical branch of Artificial Intelligence has enamored organizations across industries, spurred an immense amount of capital dedicated to its technologies, and entranced numerous media outlets for the past couple of years. All of this attention, however, will ultimately prove unwarranted unless organizations, data scientists, and various vendors can answer one simple question: can they provide Explainable AI?

Although the ability to explain the results of Machine Learning models—and produce consistent results from them—has never been easy, a number of emergent techniques have recently appeared to open the proverbial 'black box' rendering these models so difficult to explain.

One of the most useful involves modeling real-world events with the adaptive schema of knowledge graphs and, via Machine Learning, gleaning whether they're related and how frequently

they take place together.

When the knowledge graph environment becomes endowed with an additional temporal dimension that organizations can traverse forwards and backwards with dynamic visualizations, they can understand what actually triggered these events, how one affected others, and the critical aspect of causation necessary for Explainable AI.

Read the full article at AIthority.

How To Avoid Another AI Winter

Forbes published the following article by Dr. Jans Aasman, Franz Inc.'s CEO.

Although there has been great progress in artificial intelligence (AI) over the past few years, many of us remember the AI winter in the 1990s, which resulted from overinflated promises by developers and unnaturally high expectations from end users. Now, industry insiders, such as Facebook head of AI Jerome Pesenti, are predicting that AI will soon hit another wall—this time due to the lack of semantic understanding.

"Deep learning and current AI, if you are really honest, has a lot of limitations," said Pesenti. "We are very, very far from human intelligence, and there are some criticisms that are valid: It can propagate human biases, it's not easy to explain, it doesn't have common sense, it's more on the level

of pattern matching than robust semantic understanding."

Read the full article at Forbes.

2020 Trend Setting Products – AllegroGraph

Franz Inc. is proud to announce that it has been named to the 2020 Trend Setting Products in Data Management by Database Trends and Application Magazine.

Database Trends and Applications (DBTA) magazine announced its seventh annual list of trend-setting products in data management and analysis. The list, "DBTA Trend-Setting Products for 2020," recognizes products in the marketplace that are both innovative and effective in helping customers address evolving challenges and opportunities. In all, 100 products are highlighted in the special December edition of *Database Trends and Applications* magazine and on the DBTA website, www.dbta.com.

"The world of data management and analytics continues to evolve rapidly with new technologies and strategies," remarked Thomas Hogan, Group Publisher of *Database Trends and Applications*. "Cutting through the hype and identifying products that deliver results in the real world is more important than ever. This list highlights products that are truly transformative in bringing greater agility, efficiency

and innovation to market."

"We are honored to receive this acknowledgement for our efforts in delivering Enterprise Knowledge Graph Solutions," said Dr. Jans Aasman, CEO, Franz Inc. "In the past year, we have seen demand for Enterprise Knowledge Graphs take off across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for artificial intelligence applications and predictive analytics. Our AllegroGraph Knowledge Graph Platform Solution offers a unique comprehensive approach for helping companies accelerate the creation of Enterprise Knowledge Graphs that deliver new value to their organization."

Big Data 50 – Companies Driving Innovation in 2019

Franz Inc. is proud to announce that it has been named to Database Trends and Application (DBTA) – Big Data 50, Companies Driving Innovation in 2019

Today, more than ever, businesses rely on data to deliver a competitive edge. The urgency to compete on analytics has spread across industries, fueled

by the need for greater efficiency, agility and innovation," remarked Thomas Hogan, Group Publisher at Database Trends and Applications. "This list seeks to highlight those companies that are really driving innovation and serve as a guide to businesses navigating the rapidly changing big data landscape."

A new generation of tools is making it possible to leverage the wealth of data flowing into organizations from a previously unimaginable range of data sources. Machine learning, AI, Spark, and object storage are just some of the next-generation approaches gaining traction, according to recent surveys conducted by Unisphere Research, a division of Information Today, Inc.

But, it is also increasingly clear that there is no single way to approach data-driven innovation today. Open source-based technologies have gained strong adoption in organizations alongside proprietary offerings, data lakes are increasingly being implemented but data warehouses continue in widespread use, and hybrid deployments spanning cloud and on-premise are commonly accepted.

Organizations are seeking to use data-driven innovation for better reporting and analytics, real-time decision making, enhanced customer experience and personalization, and reduced costs. But with data coming in from more places than ever, being stored in more systems, and accessed by more users for a wider array of use cases, there is greater recognition that security and governance must be addressed intelligently.

Evaluating new and disruptive technologies, and then identifying how and where they can be useful, can be challenging.

To contribute to the discussion each year, Big Data Quarterly presents the "Big Data 50," a list of forward-thinking companies that are working to expand what's possible in terms

of capturing, storing, protecting, and deriving value from data.

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Creating Explainable AI With Rules

Franz’s CEO, Jans Aasman’s recent Forbes article:

There’s a fascinating dichotomy in artificial intelligence between statistics and rules, machine learning and expert systems. Newcomers to artificial intelligence (AI) regard machine learning as innately superior to brittle rules-based systems, while the history of this field reveals both rules and probabilistic learning are integral components of AI.

This fact is perhaps nowhere truer than in establishing explainable AI, which is central to the long-term business value of AI front-office use cases.

Granted, simple machine learning can automate backend

processes. However, the full extent of deep learning or complex neural networks – which are much more accurate than basic machine learning – for mission-critical decision-making and action requires explainability.

Using rules (and rules-based systems) to explicate machine learning results creates explainable AI. Many of the far-reaching applications of AI at the enterprise level – deploying it to combat financial crimes, to predict an individual's immediate and long-term future in health care, for example – require explainable AI that's fair, transparent and regulatory compliant.

Rules can explain machine learning results for these purposes and others.

Read the full article at Forbes

Webcast – Speech Recognition, Knowledge Graphs, and AI for Intelligent Customer Operations – April 3, 2019

Presenters – Burt Smith, N3 Results and Jans Aasman, Franz Inc.

In the typical sales organization the contents of the actual chat or voice conversation between agent and customer is a black hole. In the modern Intelligent Customer Operations center (e.g. N3 Results – www.n3results.com) the interactions between agent and customer are a source of rich

information that helps agents to improve the quality of the interaction in real time, creates more sales, and provides far better analytics for management.

Join us for this Webinar where we describe a real world Intelligent Customer Operations center that uses graph based technology for taxonomy driven entity extraction, speech recognition, machine learning and predictive analytics to improve quality of conversations, increase sales and improve business visibility.

View the recorded webcast to learn more about creating your Intelligent Customer Operations approach

Webinar Recording – Youtube.com/allegrograph

Slides are available in PDF or on Slideshare

What is the Answer to AI Model Risk Management?

Algorithm-XLab – March 2019

Franz CEO Dr. Jans Aasman Explains how to manage AI Modelling Risks.

AI model risk management has moved to the forefront of contemporary concerns for statistical Artificial Intelligence, perhaps even displacing the notion of ethics in this regard because of the immediate, undesirable repercussions of tenuous machine learning and deep learning models.

AI model risk management requires taking steps to ensure that the models used in artificial applications produce results

that are unbiased, equitable, and repeatable.

The objective is to ensure that given the same inputs, they produce the same outputs.

If organizations cannot prove how they got the results of AI risk models, or have results that are discriminatory, they are subject to regulatory scrutiny and penalties.

Strict regulations throughout the financial services industry in the United Statesand Europe require governing, validating, re-validating, and demonstrating the transparency of models for financial products.

There's a growing cry for these standards in other heavily regulated industries such as healthcare, while the burgeoning Fair, Accountable, Transparent movementtypifies the horizontal demand to account for machine learning models' results.

AI model risk management is particularly critical in finance.

Financial organizations must be able to demonstrate how they derived the offering of any financial product or service for specific customers.

When deploying AI risk models for these purposes, they must ensure they can explain (to customers and regulators) the results that determined those offers.

Read the full article at Algorithm-XLab.

Unraveling the Quandary of Access Layer versus Storage Layer Security

InfoSecurity – February 2019

Dr. Jans Aasman was quoted in this article about how AllegroGraph's Triple Attributes provide Storage Layer Security.

With horizontal standards such as the General Data Protection Regulation (GDPR) and vertical mandates like the Fair Credit Reporting Act increasing in scope and number, information security is impacted by regulatory compliance more than ever.

Organizations frequently decide between concentrating protection at the access layer via role-based security filtering, or at the storage layer with methods like encryption, masking, and tokenization.

The argument is that the former underpins data governance policy and regulatory compliance by restricting data access according to department or organizational role. However, the latter's perceived as providing more granular security implemented at the data layer.

> ***A hybrid of access based security and security at the data layer—implemented by triple attributes—can counteract the weakness of each approach with the other's strength, resulting in information security that Franz CEO Jans Aasman characterized as "fine-grained and flexible enough" for any***

> *regulatory requirements or security model.*

> *The security provided by this semantic technology is considerably enhanced by the addition of **key-value pairs** as JSON objects, which can be arbitrarily assigned to triples within databases. These key-value pairs provide a second security mechanism "embedded in the storage, so you cannot cheat," Aasman remarked.*

> *When implementing HIPPA standards with triple attributes, "even if you're a doctor, you can only see a patient record if all your other attributes are okay," Aasman mentioned.*

> *"We're talking about a very flexible mechanism where we can add any combination of key-value pairs to any triples, and have a very flexible language to specify how to use that to create flexible security models," Aasman said.*

Read the full article at InfoSecurity.

ГРАФОВЫЕ БАЗЫ: ПРИНЦИП РАБОТЫ И ПРИМЕНЕНИЕ – GRAPH BASES:

PRINCIPLE OF OPERATION AND APPLICATION

Всеволод Дёмкин удаленно работает во Franz Inc. над графовой базой AllegroGraph. Преподает в Projector курс «Natural Language Processing». В свободное время делаетопен-сорс для обработки природных текстов на Lisp'е.

Мы рассмотрим создание программы для агрегации текстов из разных источников, таких как twitter, блоги, reddit и т.д., – их автоматической, а затем ручной обработки для формирования дайджеста новостей по определенной теме. На этом примере мы проанализируем, какие преимущества дает использование графовых баз данных, обсудим их возможности и ограничения.

В качестве конкретной БД будет использована система Franz AllegroGraph и мы ознакомимся с ее экосистемой, включающей возможности построение API и веб-приложений, а также со средой Allegro Common Lisp, на которой она построена. Особое внимание будет уделено использованию машинного обучения и NLP при решении задач работы с текстом, в частности, внутри AllegroGraph.

Обсудим:

– В чем особенности, как работают, преимущества/недостатки графовых БД;

– Как решать базовые задачи обработки текстов с использованием инструментария ML/NLP;

– Как построить полноценное приложение с ядром обработки текста на основе графовой БД и ML/NLP технологий;

– Как устроена экосистема Common Lisp и как можно задействовать ее для создания серверных приложений.

Лекция будет полезна: разработчикам, которые интересуются

темой графовых баз данных и/или ML/NLP.