Data + AI Day 2024

Join us at Data +AI Day in Austin, Texas

Knowledge Graph Keynote
Beyond Human Oversight: The Rise of Self-Building Knowledge Graphs in AI

The rapid success in extracting 'de-hallucinated' graphs from Large Language Models (LLMs) marks a big step forward in AI. Knowledge Graphs, now the industry standard for knowledge-intensive applications in enterprises, are at the forefront of this progress. The future of these Knowledge Graphs lies in their evolution into self-replicating systems, significantly reducing the need for programming and human oversight. This shift towards automated and self-sufficient Knowledge Graphs will ensure a reliable and constantly updated "Source of Truth" in various applications.

In this presentation, Jans Aasman will discuss the four essential capabilities a Knowledge Graph must possess to achieve autonomous knowledge generation and curation:
A set of primitives in the query processor allowing for the direct extraction of knowledge and graphs from an LLM without requiring programming skills.

An embedded vector store in the Knowledge Graph. This feature enables natural language queries to interact with your private structured and unstructured data, leading to efficient Retrieval Augmented Information.
A methodology adapted from symbolic AI that allows users to use natural language to generate queries in structured query languages like SQL, SPARQL, or Prolog, even when the underlying schemas are highly complex.
Rule-based logic for a true NeuroSymbolic computing platform. The rule-based system can directly invoke LLM functions, rather than being purely symbolic. The goal is for LLM

functions to have the capability to write and execute their own rules, significantly enhancing the system's intelligence and functionality.

Jans will provide a demo of enterprise case studies that illustrate the essential role these capabilities play in the development of self-sustaining knowledge systems.