



PatientGraph with NeSy^{ai}

The Neuro-Symbolic AI platform for Healthcare

PatientGraph, powered by AllegroGraph's cutting-edge technology, is a unified Knowledge Graph and artificial intelligence (AI) platform, tailored to transform healthcare research. The heart of PatientGraph is the **NeSy^{ai}** framework, a Neuro-symbolic AI system which features an expansive, constantly evolving Knowledge Graph that encapsulates billions of relationships across million patients. PatientGraph encompasses a wide range of EMR, lab tests, physician notes, and literature from 36 million PubMed articles. It leverages the forefront of ontology-driven natural language processing (NLP) and AI-powered LLMs to seamlessly link and interpret syntax (including unstructured and structured data) and semantics (related to biological functions).

What sets PatientGraph apart is its incorporation of Neuro-symbolic AI enhancing the platform's ability to integrate and analyze complex EMR and biomedical data. This approach combines the reasoning strength of LLMs, the detailed semantic understanding provided by Knowledge Graphs, and the adaptive information retrieval prowess of Retrieval Augmented Generation (RAG) models. By blending symbolic reasoning with deep learning, PatientGraph's NeSy^{ai} not only captures the explicit knowledge contained within the EMR and biomedical data but also infers new knowledge, enabling a more intuitive exploration and analysis process. This neuro-symbolic integration significantly streamlines the management, exploration, and interpretation of vast amounts of biomedical data, opening the door to discovering new insights and opportunities in the Healthcare field.

PatientGraph delivers a Neuro-symbolic AI platform that includes an extensive database of synthetic, AI-generated patient data or de-identified real patient data. This innovative product is designed to transform healthcare analytics by providing unparalleled insights and predictive analytics to healthcare providers, payers, pharmaceutical companies, and researchers

Unique Needs Addressed by PatientGraph

- Predictive Analytics and Personalization: Entities needing advanced predictive analytics capabilities to anticipate patient needs, optimize treatment paths, and personalize patient care.

