Answering Logical Queries on Technical Knowledge Graphs

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Answering logical questions on technical knowledge graphs has been historically studied using graph query languages. These approaches can question complete knowledge graphs where answers are inferred from existing connected information links. However, knowledge graphs built from industry data are often incomplete with unconnected links, making it hard for the query language to find the answers when traversing missing links. Recently, the incomplete knowledge graph demanded embedding approaches that can return answers without the need to traverse a knowledge graph.

In this talk, Chau will outline the challenges of unstructured data in technical knowledge graphs and existing embedding approaches to answer logical queries. Chau will conclude by looking at a case study of possible query structures on a technical knowledge graph.

About the presenter
Chau is a PhD student with experience in 'representation learning' and 'graph machine learning'. His current research combines natural language processing and first-order reasoning methodologies to answer complex questions over knowledge graphs. His research aims to design models that can reason about knowledge graphs with applications in recommender systems, question answering and knowledge reasoning.