A pattern-based natural language interface for knowledge graph querying

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Recent work in Theme 1 has demonstrated the ability for knowledge graphs to encapsulate a wealth of valuable maintenance knowledge, such as historic asset information as well as failure modes associated with specific assets. In order to ask questions of a knowledge graph it must be queried via a formal query language such as Cypher. However, reliability engineers have little to no knowledge of formal languages, preventing them from being able to query knowledge graphs directly. In order to bridge this gap, in this presentation we demonstrate a pattern-based natural language interface that transforms a natural language question such as "how many pumps had leaks?" into a structured query, enabling reliability engineers to directly ask key questions of a knowledge graph.

Ziyu Zhao

PhD Student

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