

School of Computer Science and Engineering College of Engineering

Visualization Software of Heterogeneous Graph Reasoning Model

Student: Chu Jia Hao

Supervisor: Professor Luo Siqiang



Drain of Ohio stives

Project Objectives:

The objective of this project is to develop 3D visualization software tailored for Knowledge Graph (KG) to illustrate the process of reasoning within KG and furnish basic graph operation tools for users with varying levels of expertise. This software empowers users to analyse reasoning processes occurring within KG while assessing the accuracy of the resultant reasoning outcomes. Moreover, users can leverage the multi-hop functionality, enabling them to delve into the rationale underlying the formation of relationships between two entities.

3D Visualization Functions:

- Shortest Path Slideshow based on Dijkstra's algorithm
- 2. Link Frequency Analysis
- 3. Multi-hop Colouring by BFS (Breadth-First Search)
- 4. Reasoning Process Display based on Model's Output
- 5. Display Parent or Children Nodes



https://www.ntu.edu.sg/scse