Relational Graph Neural Network with Hierarchical Attention for Knowledge Graph Completion

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Knowledge Graph Completion

➢Knowledge graphs (KG) are comprised of knowledge triples in the form of (h, r, t), e.g. (Beijing, capitalOf, China).

➢Existing KGs are far from complete and comprehensive.

➢KG completion aims to complete missing values of incomplete knowledge triples, i.e., predict '?' in (h, r, ?) or (?, r, t).

Motivation

- Most existing models treat the triples in KGs independently, and fail to pay attention to the local neighborhood information of an entity.

- Graph neural network enables each node to gather information from its neighborhood.

Question:
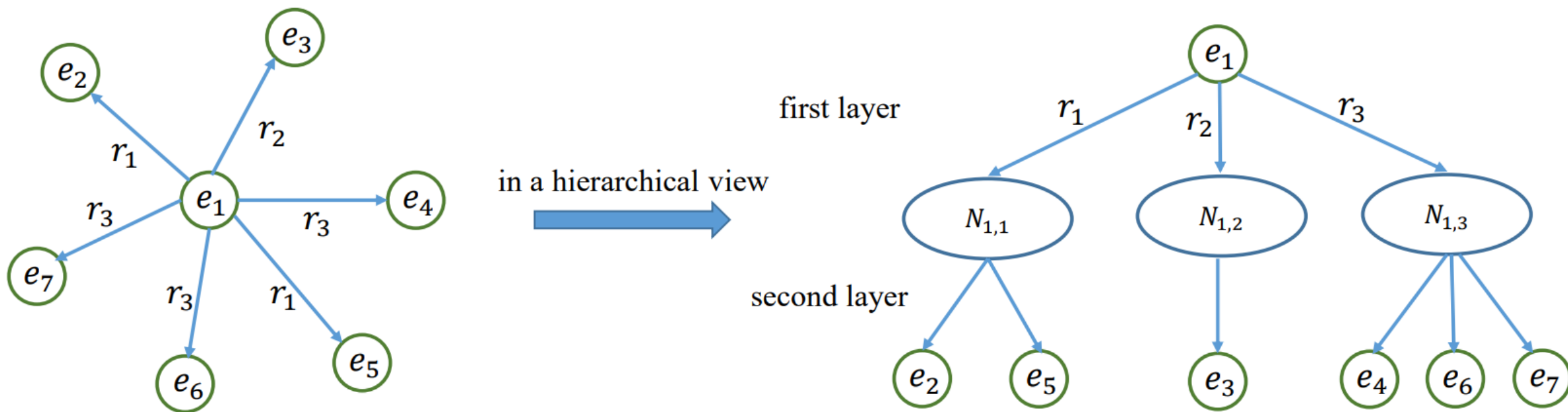Can we leverage the local neighborhood of an entity for the KG completion task using GNNs?
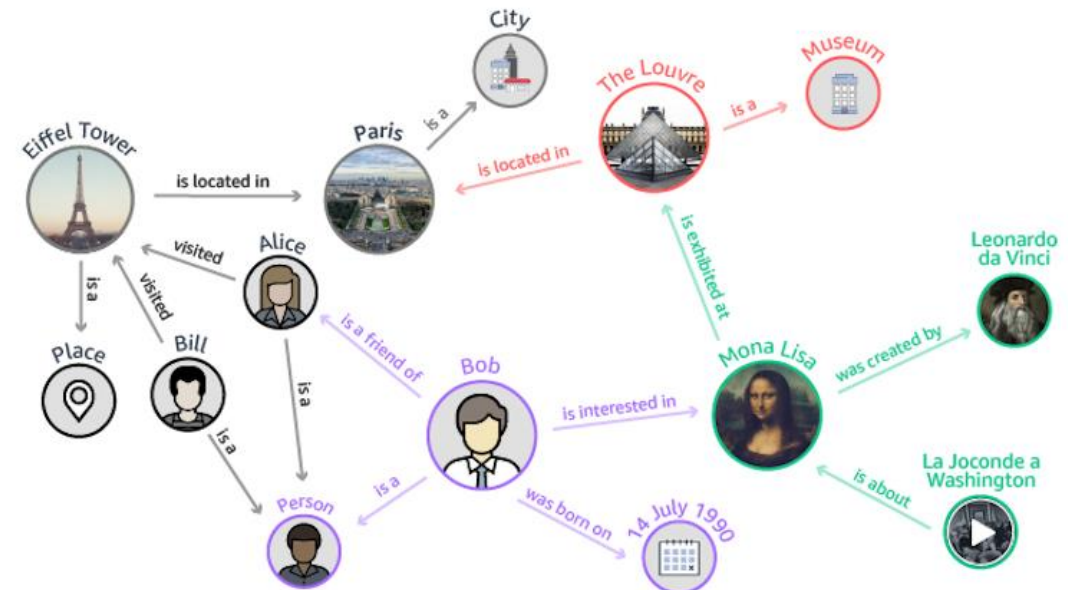
Method

- We treat the neighborhood of an entity as a hierarchical structure.

Join us for more details at the poster session!