



A Method of Recommending an Association Between Entities

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Registered Patent Region	Patent/ Filing No.	Description	Issued Date	Status
Hong Kong	HK30118357	A Method of Recommending an Association Between Entities	13 Jun 2025	Granted
China	202610235953.9	推荐实体之间的关联的方法	27 Feb 2026	Pending

Stage of Technology Transfer: Commercially Viable Technology/ Product Ready for Sale
Research Area: Knowledge Graph and Machine Learning

Abstract

This invention relates to a computer-implemented method for recommending associations between entities. The method involves receiving a corpus of text and/or image data related to various target entities, identifying these entities using large language models (LLMs), and generating relationships between target entities and assignment entities. A knowledge graph is built, representing the identified entities and their relationships. A graph-based recommendation model is trained using this knowledge graph to generate suitability values for input triples comprising specific assignment entities, target entities, and relationships. The method can handle multi-modal data, classify relationships based on their level of association, and filter or add entities and relationships to refine the model. The output is a text-based knowledge graph, which can be formatted in JSON, and the recommendation model can be selected from various graph-based algorithms. The model is trained using a binary cross entropy loss function, and the suitability values are binary. The method can rank multiple test input triples and incorporate entities not identified in the initial corpus.