

ABSTRACT

APPARATUS AND METHODS FOR USING BAYESIAN PROGRAM LEARNING FOR EFFICIENT AND RELIABLE KNOWLEDGE REASONING

In some embodiments, an apparatus includes a memory and a processor operatively coupled to the memory. The processor can be configured to receive a knowledge graph data structure, the knowledge graph data structure including at least an association of a first entity record from an entity dataset with a second entity record from the entity dataset. The processor can be configured to train a Bayesian Program Learning (BPL) model that generates multiple hypotheses based on the entity dataset and the knowledge graph data structure. The processor can be configured to generate, using the BPL model, at least one hypothesis in response to input data associated with an entity. The processor can be configured to receive feedback on the at least one hypothesis. The processor can be configured to further train the BPL model based on the feedback.

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