

AI Tutor: A Computer Science Domain Knowledge Graph-Based QA System on JADE platform

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Abstract : In this paper, we proposed an AI Tutor using ontology and natural language process techniques to generate a computer science domain knowledge graph and answer users' questions based on the knowledge graph. We define eight types of relation to extract relationships between entities according to the computer science domain text. The AI tutor is separated into two agents: learning agent and Question-Answer (QA) agent and developed on JADE (a multi-agent system) platform. The learning agent is responsible for reading text to extract information and generate a corresponding knowledge graph by defined patterns. The QA agent can understand the users' questions and answer humans' questions based on the knowledge graph generated by the learning agent.

Keywords : artificial intelligence, natural Language processing, knowledge graph, intelligent agents, QA system

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