Abstract:

As more and more RDF data become available on the web, the question of how end users can access this body of knowledge becomes of crucial importance. Although SPARQL is a standard way to access RDF data, it remains tedious and difficult for end users because of the complexity of the SPARQL syntax and the RDF schema. An ideal system should allow end users to profit from the expressive power of Semantic Web standards (such as RDF and SPARQLs) while at the same time hiding their complexity behind an intuitive and easy-to-use interface. Therefore, RDF question/answering (Q/A) systems have received wide attention in both NLP (natural language processing) and DB (database) areas.

In this talk, besides reviewing some existing work about RDF Q/A in both NLP and DB areas, we introduce our recent work along this direction. Specifically, we design a graph-based RDF Q/A system, called gAnswer, representing an natural language question as a query graph. Then, we answer natural language questions by employing subgraph matching process. We also present another work, automatically building templates for RDF Q/A, which is based on joining natural language query workloads and SPARQL query workloads.

About the Speaker:

Lei Zou received his BS degree and Ph.D. degree in Computer Science at Huazhong University of Science and Technology (HUST) in 2003 and 2009, respectively. He received a CCF (China Computer Federation) Doctoral Dissertation Nomination Award in 2009 and won Second Class Prize of CCF Natural Science Award in 2014. Since September 2009, he joined Institute of Computer Science and Technology (ICST) of Peking University (PKU) as a faculty member. He has been an associate professor in PKU since August 2012. His recent research interests include graph databases, RDF knowledge graph, particularly in graph-based RDF data management. He has published more than 30 papers, including more than 15 papers published in reputed journals and major international conferences, such as SIGMOD, VLDB, ICDE, TKDE, VLDB Journal.