Czech Technical University in Prague
Faculty of Electrical Engineering

Department of Computer Science and Engineering

DIPLOMA THESIS ASSIGNMENT

Student: **Bc. Jan Pichl**

Study programme: Open Informatics
Specialisation: Artificial Intelligence

Title of Diploma Thesis: **Enhancing Question Answering with Structured Database Queries**

Guidelines:

1. Research existing approaches of generating queries or matching subgraphs in structured RDF databases from natural language questions.
2. Propose your own approach of query generation, based on successful state-of-art algorithms and extending them.
3. Implement proposed algorithm within the YodaQA system.
4. Benchmark the accuracy of the algorithm and its impact to the accuracy of the end-to-end YodaQA pipeline.
5. Discuss obtained results and compare them with state-of-art.

Bibliography/Sources:

BAST, Hannah a Elmar HAUSSMANN. More Accurate Question Answering on Freebase. University of Freiburg. Available at: http://ad-publications.informatik.uni-freiburg.de/freebase-qa.pdf

YIH, Wen-tau, Ming-Wei CHANG, Xiaodong HE a Jianfeng GAO. Semantic Parsing via Staged Query Graph Generation: Question Answering with Knowledge Base. Microsoft Research. Available at: http://research.microsoft.com/pubs/244749/ACL15-STAGG.pdf

and citations in these papers.

Diploma Thesis Supervisor: Mgr. Petr Baudiš

Valid until the end of the summer semester of academic year 2016/2017

prof. Ing. Filip Železný, Ph.D.
Head of Department

prof. Ing. Pavel Ripka, CSc.
Dean

Prague, January 11, 2016