

Heaven's Light is Our Guide



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
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**Interrogative Analysis of Text for Semantic Parsing in Natural
Language Processing**

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CERTIFICATE

*With immense pleasure it is hereby certified that the thesis entitled "**Interrogative Analysis of Text for Semantic Parsing in Natural Language Processing**" submitted by Jaydeb Sarker, Roll No. 113014 has been carried out under my supervision. This thesis has been prepared in partial fulfillment of the requirement for Degree of Bachelor of Science in Computer Science and Engineering. The matter embodied in this thesis is original and has not been submitted for the award of any other degree.*

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ABSTRACT

Question answering (QA) problems are the most common task in natural language processing (NLP) over language input. We have introduced a method for question answering by semantic parsing of text. Semantic parsing is widely used tools to understand the natural language. Many mechanisms such as CCG, TAG, LFG and HPSG offer a synchronous framework for deriving syntactic and semantic structures of texts. We have used the method based on lambda calculus for semantic parsing to derive logical forms of sentences. Its complexity is less than other methods for parsing sequential sentences. The goal of the work described in this paper is to use semantic information on question answering. Logical forms of each sentence have been derived by lambda calculus. The questions have to be analyzed by collecting main features to find out correct answer from the facts. The methodology that we have used in question answering is very easy and simple than the other methods. The five tasks of bAbI-10k text question-answering dataset have been used in the experiments.

Keywords—question answering, semantic parsing, lambda calculus, logical forms.