

Supervisor's statement of a final thesis

Czech Technical University in Prague

Faculty of Information Technology

Student: Bc. Jan Košář
Supervisor: Ing. Radomír Polách
Thesis title: Regulární stromový výraz a jeho derivace
Branch of the study: System Programming (Master)

Date: 1. 6. 2015

<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 5.</i>
1. Difficulty and other comments on the assignment	<u>1 = extremely challenging assignment,</u> <u>2 = rather difficult assignment,</u> <u>3 = assignment of average difficulty,</u> <u>4 = easier, but still sufficient assignment,</u> <u>5 = insufficient assignment</u>
<i>Criteria description:</i> Characterize this final thesis in detail and its relationships to previous or current projects. Comment what is difficult about this thesis (in case of a more difficult thesis, you may overlook some shortcomings that you would not in case of an easy assignment, and on the contrary, with an easy assignment those shortcomings should be evaluated more strictly.)	
<i>Comments:</i> Assignment is a part of the arborological research. It focuses on regular tree expression derivatives as a means for converting regular tree expressions in a deterministic push-down store automaton. It is mostly a research topic.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
2. Fulfilment of the assignment	<u>1 = assignment fulfilled,</u> <u>2 = assignment fulfilled with minor objections,</u> <u>3 = assignment fulfilled with major objections,</u> <u>4 = assignment not fulfilled</u>
<i>Criteria description:</i> Assess whether the thesis meets the assignment statement. In Comments indicate parts of the assignment that have not been fulfilled, completely or partially, or extensions of the thesis beyond the original assignment. If the assignment was not completely fulfilled, try to assess the importance, impact, and possibly also the reason of the insufficiencies.	
<i>Comments:</i> Most of the assignment was fulfilled, but there was no implementation of the designed algorithm which weakens the benefits of this work.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
3. Size of the main written part	<u>1 = meets the criteria,</u> <u>2 = meets the criteria with minor objections,</u> <u>3 = meets the criteria with major objections,</u> <u>4 = does not meet the criteria</u>
<i>Criteria description:</i> Evaluate the adequacy of the extent of the final thesis, considering its content and the size of the written part, i.e. that all parts of the thesis are rich on information and the text does not contain unnecessary parts.	
<i>Comments:</i> Text is short, but acceptable. This is partly because there was no implementation of the designed algorithm.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
4. Factual and logical level of the thesis	65 (D)
<i>Criteria description:</i> Assess whether the thesis is correct as to the facts or if there are factual errors and inaccuracies. Evaluate further the logical structure of the thesis, links among the chapters, and the comprehensibility of the text for a reader.	
<i>Comments:</i> There are some factual and logical problems. String is not a set of symbols (probably a copying typo). Also it is not clear what types of languages could be processed by the presented methods. The comparison of LR-parsing and derivatives is rather interesting. It was written in English so there are some expected errors and problems.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
5. Formal level of the thesis	85 (B)
<i>Criteria description:</i> Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspects, see Dean's Directive No. 12/2014, Article 3.	
<i>Comments:</i> There are only minor problems, mostly related to English language.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
6. Bibliography	75 (C)
<i>Criteria description:</i> Evaluate the student's activity in acquisition and use of studying materials in his thesis. Characterize the choice of the sources. Discuss whether the student used all relevant sources, or whether he tried to solve problems that were already solved. Verify that all elements taken from other sources are properly differentiated from his own results and contributions. Comment if there was a possible violation of the citation ethics and if the bibliographical references are complete and in compliance with citation standards.	

Comments:

The bibliography is relevant, but there should be more references for basic notions and their citations.

Evaluation criterion:

The evaluation scale: 0 to 100 points (grade A to F).

7. Evaluation of results, publication outputs and awards

65 (D)

Criteria description:

Comment on the achieved level of major results of the thesis and indicate whether the main results of the thesis extend published state-of-the-art results and/or bring completely new findings. Assess the quality and functionality of hardware or software solutions. Alternatively, evaluate whether the software or source code that was not created by the student himself was used in accordance with the license terms and copyright. Comment on possible publication output or awards related to the thesis.

Comments:

The results of this work is search, analysis and proposal for the regular tree expression derivatives as well as three variants of algorithm for the conversion of regular tree expressions into the push-down store automaton. But the implementation of those algorithms is not present. It is hard to tell the exact benefits of the presented algorithms without formal proofs and implementations. Publication outputs and awards was not expected.

Evaluation criterion:

No evaluation scale.

8. Applicability of the results

Criteria description:

Indicate the potential of using the results of the thesis in practice.

Comments:

The results can be used as a basis for a follow up work.

Evaluation criterion:

The evaluation scale: 1 to 5.

9. Activity and self-reliance of the student

9a:
1 = excellent activity,
2 = very good activity,
3 = average activity,
4 = weaker, but still sufficient activity,
5 = insufficient activity
9b:
1 = excellent self-reliance,
2 = very good self-reliance,
3 = average self-reliance,
4 = weaker, but still sufficient self-reliance,
5 = insufficient self-reliance.

Criteria description:

Review student's activity while working on this final thesis, student's punctuality when meeting the deadlines and consulting continuously and also, student's preparedness for these consultations. Furthermore, review student's independency.

Comments:

The activity was lower than average, but there was a presentation of the first algorithm for the arborological group.

Evaluation criterion:

The evaluation scale: 0 to 100 points (grade A to F).

10. The overall evaluation

65 (D)

Criteria description:

Summarize the parts of the thesis that had major impact on your evaluation. The overall evaluation **does not** have to be the arithmetic mean or any other formula with the values from the previous evaluation criteria 1 to 9.

Comments:

The thesis is acceptable, even though there are problems. There was no implementation of the designed algorithm which weakens the benefits of this work and means that the assignment was not completely fulfilled, also there are some factual and logical problems. The thesis was written in English which is good, even though there were some expected errors and problems.

Signature of the supervisor: