Supervisor's statement of a final thesis

Student:	Bc. Richard Werner
Supervisor:	Mgr. Alexander Kovalenko, Ph.D.
Thesis title:	Developing an automatic speech recognition system based on Czech spoken language
Branch of the study:	Knowledge Engineering

Date: 23. 8. 2020

Evaluation criterion:	The evaluation scale: 1 to 4.
1. Fulfilment of the assignment	**_1 = assignment fulfilled,_** _2 = assignment fulfilled with minor objections,_ _3 = assignment fulfilled with major objections,_ _4 = assignment not fulfilled_

Criteria description:
Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently.
In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.

Comments:
The assignment was fulfilled sufficiently. The objectives are formulated correctly and fulfilled sufficiently

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
2. Main written part	_85 (B)_

Criteria description:
Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.

Comments:
The current version is a big improvement over the previous one, the student did nice work on many of the issues to improve the quality of the final thesis. The theoretical part of the FT is well organized and informative. It includes a sufficient amount of theory to help the reader to develop a general understanding of the topic. Even though it may seem excessively extensive, a detailed description of the theory can be useful for readers from other fields of computer science. On the other hand, the practical part is still in comparison with the actual amount of work conducted by the student, nevertheless, the is a notable improvement. Language, citations, and references are at an acceptable level. All copyrighted works have been used in accordance with their license terms.

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
3. Non-written part, attachments	_90 (A)_

Criteria description:
Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.

Comments:
The non-written part includes dataset sample, notebook, and source code.
The student used suitable and adequate tools for automatic speech recognition, that can be easily reproduced

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
4. Evaluation of results, publication outputs and awards	_80 (B)_

Criteria description:
Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.

Comments:

This work has an immense application potential, as far as it helps to expand the Czech spoken language database. This is extremely important in many fields, such as education, helping people with disabilities, healthcare, etc. However, from the scientific point of view, there are some fundamental findings lacking, even though the student mastered and tested the full spectrum of existing preprocessing techniques, for this specific problem automated extraction of trained features might be profitable.

Evaluation criterion:	*The evaluation scale: 1 to 5.*
5. Activity and self-reliance of the student	5a: 1 = excellent activity, ***2 = very good activity,*** 3 = average activity, 4 = weaker, but still sufficient activity, 5 = insufficient activity 5b: ***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:

From your experience with the course of the work on the thesis and its outcome, review the student's activity while working on the thesis, his/her punctuality when meeting the deadlines and whether he/she consulted you as he/she went along and also, whether he/she was well prepared for these consultations (5a). Assess the student's ability to develop independent creative work (5b).

Comments:

The student has shown a passion for the problem, excellent self-reliance, ability to develop independent creative work, and was fairly active during the final thesis preparation.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
6. The overall evaluation	85 (B)

Criteria description:

Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.

Comments:

The student developed an automatic speech recognition system based on the Czech spoken language, which is a highly important applied task. On the other hand, the work is lacking some fundamental findings and practical written part does not reflect the amount of work performed.

Signature of the supervisor: