

I. IDENTIFICATION DATA

Thesis title:	Clustering Network Security Data for Efficient Human Analysis
Author's name:	Jan Svoboda
Type of thesis :	bachelor
Faculty/Institute:	Choose an item.
Department:	Department of Cybernetics
Thesis reviewer:	doc. Mgr. Viliam Lisý, MSc., Ph.D.
Reviewer's department:	Department of Computer Science

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	extraordinarily challenging
<i>How demanding was the assigned project?</i>	
<p>The assignment was very challenging, because the problem being solved was very underspecified. The student had to understand the problem from the domain perspective to specify the non-trivial optimization problem that is being solved. Only after that, he could proceed to its solution. I consider this rather difficult for a bachelor student.</p> <p>Furthermore, the analysis pipeline was computationally quite expensive, which made experimentation with it more complicated than usual.</p>	

Fulfilment of assignment	fulfilled
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
All points of the assignment were fulfilled and the student provides a summary of how and where in Section 5.4.	

Activity and independence when creating final thesis	A - excellent.
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
<p>The student was very active and hard working. He was always on time and well prepared for the consultations. He was independently proposing new technical solutions and he was asking the right questions to be able to refine the specification of the assignment. He was also very persistent and successful, but still very polite, in chasing me to down to get feedback on his earlier drafts.</p>	

Technical level	A - excellent.
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
<p>The student clearly demonstrates his ability to use the knowledge obtained in the studies, as well as extending it further by studying scientific papers. The experiments use clear separation of the training, validation and test data, confidence intervals and follow all the scientific standards.</p>	

Formal level and language level, scope of thesis	B - very good.
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
<p>English is correct, very clear and understandable. However, at some places, the flow of the text could be improved. I sometimes had to re-read a paragraph to understand its context and meaning, but I always eventually managed. The thesis is a little longer than usual, even though the student was trying hard to keep it brief. All the content is relevant and explained at the right level of detail.</p>	

Selection of sources, citation correctness**A - excellent.**

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

All the adapted materials and ideas are properly cited. The thesis cites 89 sources, vast majority of which the student found on his own. The citations follow the standards.

Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Please insert your comments here.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading.

The assignment of this thesis was rather challenging, because the student had to specify and formalize a nontrivial practical problem, not just solve it. He managed to do it without any problems, read a larger amount of relevant literature and created a technically sound solution that he thoroughly evaluated and clearly described. The final thesis would, in my opinion, pass even as a master thesis.

The grade that I award for the thesis is **A - excellent**.

Date: **31.5.2024**

Signature: