

I. IDENTIFICATION DATA

Thesis name:	Pattern recognition with neural networks
Author's name:	Regina Latypova
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis supervisor:	Karel Frajták
Supervisor's department:	Department of Computer Science

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
Selecting an optimal activation function for an artificial neural network is a challenging task. Instead of trying to find a single optimal function, the author proposes to choose the best activation function out of few candidates.	

Satisfaction of assignment	fulfilled
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
The introduction into the problematics is clear and enjoyable to read. Author then advances to the overview of available activation functions/ The author the proposes method for searching for an optimal activation function. The function was found and implemented and tested on the dataset containing handwritten digits images.	

Technical level	A - excellent.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
Thorough research on artificial networks was conducted and the results were used to carry out the experiment.	

Formal and language level, scope of thesis	B - very good.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
In the section that is describing the artificial networks lowercase characters are used to denote matrices where capital letters and special font is usually used. Text is pointing me to a chapter 2.3, while chapter 1.3 was the target. Thesis is well organized and formatted. Even though the author is not a native speaker the language is easy to read and understandable. Personally, I think the thesis is quite short for a master thesis.	

Selection of sources, citation correctness	B - very good.
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
The bibliography section contains reasonable number citations and some of them are of a recent date.	

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

Questions

1. In the chapter 2.4 you are describing the 4 stages of the development and you are mentioning your work on a user interface. But it looks like a Python library was created. So is there a UI or Python library with an API?

I evaluate handed thesis with classification grade **A - excellent.**

Date: **20.6.2019**

Signature:

