

I. IDENTIFICATION DATA

Thesis name:	Large-scale feature selection
Author's name:	Jan Štercl
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis supervisor:	Ing. Danila Khikhlukha, Ph.D.
Supervisor's department:	

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment

**extraordinarily
challenging**

Evaluation of thesis difficulty of assignment.

Feature selection is an essential step in almost any Machine Learning pipeline. One has to be careful to select among quite a variety of approaches the one which suite the best. This selection involves a deep understanding of each framework as well as conscious experimental work.

Satisfaction of assignment

fulfilled

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.

Jan Štercl prepared an extensive overview of existing Feature Selection methods highlighting pros and cons. Jan also provided a set of experiments to measure the performance and compare one with another. This approach revealed the method performing the best for the large datasets.

Activity and independence when creating final thesis

A - excellent.

Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.

The job has been done on time respecting all the deadlines almost completely independent.

Technical level

A - excellent.

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

The thesis is accurately prepared. The literature survey and design of experiments demonstrate an excellent research skills of Jan Štercl. His implementation of Feature Selection method is being adopted in a real market product of Cisco.

Formal and language level, scope of thesis

B - very good.

Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.

The selected style of language sometimes doesn't fit the one required for the scientific paper or scientific report. However, this is just the matter of personal choice and selected style has been consistently respected through the whole thesis.

Selection of sources, citation correctness

A - excellent.

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.

Jan Štercl was very active in looking for Feature Selection methods that could possibly suit our needs. In my opinion the challenge in such hot topic as ML is not to review all the related research but actually narrow down the list of question one is looking answers to. This has been perfectly done by Jan and has been reflected in selected papers to review and citations used.

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

Overall I'm very satisfied with the work done by Jan Štercl. In my opinion Jan demonstrated noticeable research skills and qualification required to obtain a Master degree. It has been my pleasure to work with Jan and I look forward to continuing this collaboration.

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

I evaluate handed thesis with classification grade A - excellent.

Date: 05/06/2019

Signature: