

# SUPERVISOR'S OPINION OF FINAL THESIS

#### I. IDENTIFICATION DATA

Thesis name: Click here to enter text.

Author's name: David Kubesa

**Type of thesis:** Master

Faculty/Institute: Faculty of Electrical Engineering

**Department:** Computer Science

Thesis supervisor: Sebastian Garcia

**Supervisor's department:** Computer Science

#### II. EVALUATION OF INDIVIDUAL CRITERIA

## Assignment Extraordinarily Challenging

Evaluation of thesis difficulty of assignment.

The topic of this thesis was extraordinarily challenging because David set out to identify computers in the network based on their behavior. The complexity of human actions is so great and the amount of devices in the networks so much that trying to model them and trying to identify them its a task for a group of people for several years.

### 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.

The thesis meets the assignment. It successfully worked around the problem of users identification to find a good solution and methodology for analysing their behavior. There were only a small amount of technical details to improve, such as the use of more features in the detection process. Since not all the created features were used, this may imply that the results can be improved.

### Activity and independence when creating final thesis

good

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 student worked hard on the thesis, but there were certain time constrains that were not completely met. However, this did not diminish the technical quality of the thesis. The student consulted regularly. The student still has to improve more his capacity to work independently, trying to find a stronger base for his own creations.

Technical level very good



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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 very specialized, since the student had to learn about Machine Learning but also about security and network analysis. The student gained knowledge by studying and reading, and by largely working with the data.

### Formal and language level, scope of thesis

good

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

The notation used in the thesis is correct. The language can be improved and the explanations can be done more clearly. There is a need to improve the English language.

### Selection of sources, citation correctness

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.

The student correctly used all the materials at his disposition. The source materials were correctly analyzed and incorporated in the thesis. There is a clear separation between the creations of the student and the previous work. All citations are complete and correct. The amount of citations may seem a little short, but this is due to the strong lack of previous works in the same topic.

### 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.

The thesis achieved its primary goals, using a good level of theoretical results and a complete and functional software conception. The experiments were run completely and in time.

## III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

The thesis presented is a good work about how to identify the behavior of users in the network. This is a hard topic that requires a lot of work. The student learned a lot and despite some roadblocks managed to fulfil the goals, obtain good results and publish a software. Results show that its possible, under certain constrains, to identify users in the network.



Date: 2018, June 7th

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I evaluate handed thesis with classification grade B.

Signature: