



# Supervisor's statement of a final thesis

**Supervisor:** doc. Ing. Filip Křikava, Ph.D.  
**Student:** Bc. Karolina Hrnčířiková  
**Thesis title:** Profiler for the R programming language  
**Branch / specialization:** System Programming  
**Created on:** 3 June 2024

## Evaluation criteria

### 1. Fulfillment of the assignment

- ▶ [1] assignment fulfilled
- [2] assignment fulfilled with minor objections
- [3] assignment fulfilled with major objections
- [4] assignment not fulfilled

All 4 points of the assignment were carried out.

### 2. Main written part 90<sub>/100</sub> (A)

Karolina writes well: her English is very good and the style is also good (except for a few parts where it gets somewhat too informal). The thesis is well structured and guides the reader throughout the process of creating a profiler.

Some parts could have been expanded to provide better analysis of the problem and more details (as that is where the devil usually hides).

### 3. Non-written part, attachments 80<sub>/100</sub> (B)

The code is really just a prototype and proper integration into the R virtual machine will require some refactorings.

On the other hand, the RVM is quite a difficult target for any extension.

### 4. Evaluation of results, publication outputs and awards 70<sub>/100</sub> (C)

The main weakness of this work is that there were not enough time for a proper evaluation. Based on the preliminary assessment, it seems that the profiler does what we have hoped it will do, but it is far from giving actionable output in a proper form.

## 5. Activity of the student

- ▶ [1] **excellent activity**
- [2] very good activity
- [3] average activity
- [4] weaker, but still sufficient activity
- [5] insufficient activity

Working with Karolina is a pleasure.

## 6. Self-reliance of the student

- [1] excellent self-reliance
- ▶ [2] **very good self-reliance**
- [3] average self-reliance
- [4] weaker, but still sufficient self-reliance
- [5] insufficient self-reliance

Given the level of complexity of this topic Karolina did very well in trying to understand all the layers and push the implementation forward.

## The overall evaluation

85 /100 (B)

The topic of this thesis turned out to be harder than expected. I would have liked to experiment more with the tool to get a better sense of its capabilities and limitations. Basically, the work stopped in the most exciting point when we have a prototype and could start using it to study R programs.

## **Instructions**

### **Fulfillment of the assignment**

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.

### **Main written part**

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. 52/2021, 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.

### **Non-written part, attachments**

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.

### **Evaluation of results, publication outputs and awards**

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.

### **Activity of the student**

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.

### **Self-reliance of the student**

From your experience with the course of the work on the thesis and its outcome, assess the student's ability to develop independent creative work.

### **The overall evaluation**

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.