THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title:	Behavioral data processing
Author's name:	**Lukáš Sláma**
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis reviewer:	Daniel Novák
Reviewer's department:	Department of Cybernetics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	**challenging**

How demanding was the assigned project?

The project "Behavioral Data Processing" is highly demanding, requiring a deep understanding of both software engineering and data science. It involves developing a full-stack web application (Qualix) to improve an existing behavioral data collection platform (LAMP), addressing technical limitations, implementing new features, and conducting a classification study using support vector machines (SVMs) to analyze behavioral data. The integration of multiple technologies and rigorous data processing and analysis underscore the complexity and high demands of this project.

Fulfilment of assignment	**fulfilled**

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.

The thesis effectively fulfills the assigned tasks by developing the Qualix application and conducting a thorough study on behavioral data classification. The primary goals, including the enhancement of the LAMP platform with new features like data quality checks and visualizations, and the SVM-based classification study, have been achieved. Overall, the core objectives were met, with comprehensive documentation of the processes and results

Activity and independence when creating final thesis	**A - excellent.**

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.

The student demonstrated a positive and proactive approach. The thesis shows that time limits were met, and regular consultations were held, indicating good preparation for meetings. The ability to work independently is evident from the comprehensive development and testing phases described, showing a strong grasp of both theoretical and practical aspects of the project.

Technical level	**A - excellent.**

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?

The thesis is technically sound, showcasing a strong command of various technologies, including Java, Spring Boot, PostgreSQL, Python, and data visualization libraries. The student clearly explains the design and implementation of the Qualix application, the methods used for data collection and processing, and the SVM classification study. The technical explanations are detailed and demonstrate a high level of expertise in software engineering and data science.

Formal level and language level, scope of thesis	**A - excellent.**

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?

Formalisms and notations are used appropriately throughout the thesis. The document is well-organized and logically structured, covering all necessary aspects of the project comprehensively. The language is clear and understandable, and the English is satisfactory, making the complex technical content accessible to readers. The extensive nature of the thesis and its presentation are commendable.

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?	
The thesis makes adequate references to earlier work, with a well-curated selection of sources from reputable publications. The student's original work is clearly distinguished from previous studies, and the bibliographic citations meet academic standards. This demonstrates thorough engagement with existing literature and situates the current work within the broader research context	

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.
The overall quality of the thesis is high. It introduces novelty by developing a new application (Qualix) to address limitations in an existing platform (LAMP) and conducting a detailed classification study using behavioral data. The presented solution is practical and offers significant utility for improving behavioral data processing and analysis.

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

In summary, the thesis represents a contribution to the fields of software engineering and data science, particularly in improving behavioral data processing and analysis. The student's ability to integrate complex technical concepts into a functional application and conduct a thorough classification study is commendable. The final grading reflects the high quality, thorough research, and practical significance of the work. I would grade the thesis as excellent, with minor recommendations for ongoing refinements and additional features as suggested in the future work section

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

Date: **13.6.2024**   Signature: