

I. IDENTIFICATION DATA

Thesis title:	Data-driven Automated Dynamic Pricing for E-Commerce
Author's name:	Jiří Moravčík
Type of thesis :	Magister
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Cybernetics
Thesis reviewer:	Dominik Seitz
Reviewer's department:	Computer Science

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
The student was able to implement a full pipeline consisting of data retrieval, data processing, model training and deployment which was evaluated by experts. I consider the successful implementation of the project as challenging.	

Fulfilment of assignment	fulfilled
<i>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.</i>	
The student successfully completed all required assignments of the thesis.	

Methodology	correct
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
The student performed a thorough review of Reinforcement Learning literature and his proposed solution proves to be effective for the particular usecase. However a thorough justification / discussion of advantages and disadvantages of other approaches could have been included.	

Technical level	A - excellent.
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
All used algorithms have been properly outlined, are well-embedded into the text and properly explained which conveys a solid grasp on the topic.	

Formal and language level, scope of thesis	A - excellent.
<i>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?</i>	
The used notation is clear, the work is built using a clear structure and the language follows scientific standards.	

Selection of sources, citation correctness	A - excellent.
<i>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?</i>	
All necessary citations are present.	

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 work claims to be the first successful application of Offline Reinforcement Learning to dynamic pricing problems. More experiments with different modifications to the model would make the thesis even stronger, however since the implementation/evaluation was challenging it would be out of scope for a bachelor thesis. Hence, I recommend A.

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

Summarize your opinion on the thesis and explain your final grading. Pose questions that should be answered during the presentation and defense of the student's work.

The student proved to not only be strong in conceptualizing an idea and implementing each required part of it, but also seems to have a strong grasp of Reinforcement Learning literature.

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

Date: **Click here and enter the date.**
31.05.2021

Signature: