## Bachelor Thesis Review

Faculty of Mathematics and Physics, Charles University

Thesis author Matúš Rožek

Thesis title Order Independent Transparency

Year submitted 2024

Study program Computer Science

**Specialization** Computer Graphics, Vision and Game Development

Review author Martin Kahoun Advisor

**Department** Department of Software and Computer Science Edu-

cation

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Overall, this is a great thesis dealing with an actual topic that is still an active area of research. The author was able to do his own research on the topic, sum up the analysis, and based on that decide which algorithms to choose for implementation and comparison. His comparison is very thorough and the author draws conclusions that match those made by the others when deciding what OIT algorithm to pick.

The overall workload is, in my opinion, higher than the standard for the a Bachelor thesis. Original assignment asked for just two algorithms to be implemented and the author chose five where some of them are not simple ones such as the Moment Based OIT.

Thesis Text	good OK	poor	insufficient
THOSIS TOXU	good ON	poor	mour

Form language, typography, refere	ences X	X	
Structure context, goals, analysis, design, evaluation, level of d	etail X		
Problem analysis			
Developer documentation			
User Documentation			

The text of the thesis is well structured, concise and to the point. From the formal point of view, a language proofing could remove occasional typos. I was somewhat irriated only by uneven paragraph spacing and their typesetting. A minor nuissance is placement of figures where they are sometimes posted out of sequence. Other than that, the author showed very good work with references during the problem analysis.

The text is structured in a way that it first introduces us to the problem followed by thorough state of the art overview. Then the author presents the selected methods and describes their inner workings along with implementation details. The thesis closes up by very thorough discussion of observed and measured results with recommendations based on these results.

The work is then supplied with two attachments containing used documentation on how to use the demonstration application as well as a developer documentation that helps to quickly orient in the provided source code.

Thesis Code good OK poor insufficient

Design architecture, algorithms, data structures, used technologies			
Implementation naming conventions, formatting, comments, testing	X		
Stability	X		

The code is well structured, well commented, and well written. It adheres to a coding standard the author has set for himself and doesn't deviate from that. I have to commend the unified and self—contained OIT algorithm interface which allows for easy implementation of a new one for further comparison. Overall during the testing, the application was stable and was quite intuitive to use.

Overall grade Excellent
Award level thesis No

Date 17.6. 2024 Signature