

OPPONENT'S EVALUATION OF THE BACHELOR'S THESIS

Student: Jawhar Ayman Abdullah

Opponent: Tomáš Dulík, Ph.D.

Study program: **Software Engineering**

Study course/Specialization:

Academic year: **2022/2023**

Bachelor's Thesis topic: **Comparison of Game Engines for PC Game Development**

Evaluation of the thesis

The author fulfilled all points of thesis assignment. The resulting text would be useful for students entering games programming area and deciding between Unity or Unreal Engine 5. The author can possibly continue working on this topic in his future M.Sc. diploma thesis, where he could provide more in-depth information about the performance benchmarks, optimizations, and profiling of UE5 and Unity programs, because both engines evolve very quickly. For example, the new Unity DOTS technology achieves performance previously unseen in Unity games, beating the UE5 in some specific scenarios by big margin.

As for the formal aspects, there are some issues in the text: the bibliography contains items not referenced in the thesis, e.g.: [2], [8], [18], [44], [49], [50]. There are also occasional typos like “**gam** engine“ (p. 23 and 61), „Gadot“ (p. 33), „development. **but** given.“ (p. 24).

Grahps in Figure 4, 9, 16-18, 21-23, 26 should have X and Y axes switched: the X-axis should represent the input variable and the Y-axis the resulting value. Only Figure 27 has correct axis configuration.

The overall impression of the thesis is very good.

Questions relating to the defence of the thesis

An assessment of complexity of installation was mentioned in “6.2 Accessibility”. Which game engine IDE allows running as portable application, not requiring any installation at all?

Overall evaluation of the thesis:

The Opponent shall grant a mark according to the ECTS classification scale:

A – Excellent, B – Very Good, C – Good, D – Satisfactory, E – Sufficient, F – Insufficient

An “F” grade also means "I do not recommend the thesis for defence."

I recommend this thesis to be defended and suggest the following evaluation:

B - Very Good

In the case of an evaluation grade of “F – Insufficient”, please supply the main shortages and reasons for this assessment.

Date: 1. 6. 2023

Thesis Opponent's Signature: