Supervisor assessment of Bachelor's Thesis

Student: Kocourek Tomáš

Title: Abstraction in Automata Algorithms (id 24926) **Supervisor:** Holík Lukáš, doc. Mgr., Ph.D., DITS FIT BUT

1. Assignment comments

I consider this assignment very difficult.

The work [1] is an extremely hard material to absorb, with extremely heavy and complex math for a bachelor student (meaning harder than things like algorithms for automata over infinite words). The algorithm itself is quite complex too.

2. Literature usage

Great, very independent and competent.

3. Assignment activity, consultation, communication

The student worked very independently, sometimes even too much so. His ability to absorb the heavy math is quite impressive, and his ability to write about it too in fact, considering that he did not need almost any help with writing the theoretical part of the text. The work was however marked by some difficulties, mainly health issues.

4. Assignment finalisation

The student was active, most of the work was done in advance, the experimental evaluation was unfortunately done in haste.

5. Publications, awards

So far none, but the work may extended and then included in a planned conference paper on comparison of algorithms on AFA emptiness testing.

6. Total assessment very good (B)

The student displayed an extraordinary ability to understand and also write about extremely difficult material. The last part of the work was done in haste, hence the results are not what they could have been, but if the student wants to join the research on the topic, we may improve the work and publish it.

In Brno 2 June 2022

Holík Lukáš, doc. Mgr., Ph.D. supervisor

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