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CTU Diploma Project Review
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CTU Diploma Project review- 2nd reviewer's evaluation of master thesis with title "Streaming Novelty Detection in Telemetry Data " by Space Master student Holger Niessner.

I find that the *goal* of the thesis project well fulfils the requirements of a master thesis in space technology. The work concerns building part of a system for identifying and presenting the presence of outliers in data streamed from a satellite.

The thesis includes databases, distributed computing and other subjects not part of the main path for the Space Master education. Through the thesis project work the student has shown that he has been able to work with new tasks learning new concepts within a limited time.

Concepts used in the thesis is presented, but the level of detail is varying, where sometimes trivial concepts are described more in detail than is needed, whereas concepts more important for understanding the problem is presented briefly. It is therefore difficult at some places to, from the presentation, see if the student has a deep understanding of the concepts or not. The student has put in a sufficient effort into the task: he has built up a complete system and also evaluated the result to some extent.

The evaluation of the implementation and the discussion of the result is somewhat weak (Chapter 6). The thesis would have benefited from a comparison and rate of false positives since this is of importance for the operators work load. It is also unclear to what extent outliers are missed.

The project is mainly built up (designed) using existing building blocks but the student has improved parts of the software bottlenecks thereby improving the performance. This is described in chapter 5.

The result of the thesis project contributes to a future solution to the problem addressed, as discussed by the student in the last chapter.

Based on the review above I recommend to grade the thesis by C(*good*). The oral presentation is still to be graded.

This review serves solely for the purposes of the diploma project defense at CTU. LTU official evaluation for the SpaceMaster double degree will follow the thesis defense and may differ from this review report and suggested grade.

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