

## Review of Master's Thesis

**Student:** Hornický Michal, Bc.  
**Title:** Design and Implementation of Distributed System for Algorithmic Trading (id 22171)  
**Reviewer:** Trchalík Roman, Mgr., Ph.D., UIFS FIT VUT

1. **Assignment complexity** **more demanding assignment**  
The goal of this thesis was to design and develop distributed system for high-frequency algorithmic trading. The application being developed meets the requirements for performance, scalability and customization.
2. **Completeness of assignment requirements** **assignment fulfilled**  
All entry points have been met.
3. **Length of technical report** **in usual extent**  
The thesis contains a total of 60 numbered printed pages (including attachments), while the actual text of the work without introductory pages, without literature and appendices contains about 69 standard pages (excluding images). Since the text is interleaved with images. The thesis meets the requirements of the Master thesis.
4. **Presentation level of technical report** **85 p. (B)**  
The logical structure of the technical report is good. The chapters are clear and well understood by the reader. I appreciate especially the design and technologies used to solve a given work.
5. **Formal aspects of technical report** **90 p. (A)**  
From a formal point of view, the technical report is very good. The report is written in English without any significant language mistakes.
6. **Literature usage** **85 p. (B)**  
The literature list contains 22 items. These sources are relevant to the topic, properly listed in the technical report and duly cited.
7. **Implementation results** **90 p. (A)**  
System is designed as a collection of loosely coupled components, running inside virtualized environment provided by kubernetes. The selected solution can be distributed over many computing nodes as needed. The application backend is well designed, but the frontend needs some improvements. I appreciate the choice of modern technologies and I am satisfied with the implementation output.
8. **Utilizability of results**  
The system designed was submitted into the Excel@FIT student conference.
9. **Questions for defence**
  - Why did you choice ZeroMQ?
  - Could you explain how the load balancing works in the evaluation component?
10. **Total assessment** **90 p. excellent (A)**  
The result of this Master's thesis is a working and practically usable software and a very good technical report in English. I propose to evaluate the thesis as "excellent" (A).

In Brno 7. June 2019

Trchalík Roman, Mgr., Ph.D.  
reviewer