## Bachelor Thesis Review

Faculty of Mathematics and Physics, Charles University

Thesis author Michal Tichý

Thesis title ParsecCore: A parser combinator library in the C#

language

Year submitted 2023

Study program Computer Science

**Specialization** Programming and software development

**Review author** Filip Kliber Advisor **Department** Department of Distributed and Dependable Systems

 Overall
 good
 OK
 poor insufficient

 Assignment difficulty
 X
 X

 Assignment fulfilled
 X
 X

 Total size
 ... text and code, overall workload
 X

The goal of this thesis was to create a parser combinator library in C# language inspired by a Haskell library Parsec with a similar set of features. The goals of this theses were fulfilled.

Thesis Text	good	OK	poor	insufficient
Form language, typography, references		X		
Structure context, goals, analysis, design, evaluation, level of detail		X		
Problem analysis	X			
Developer documentation		X		
User Documentation	X			

The author provides sufficient and descriptive background to the parsing theory. The analysis of the Parsec library in Haskell and possible ways of implementing the same features with similar syntax in C# is done thoroughly. The user documentation is well written and contains useful examples. The author also provides results of benchmarks that compare the implementation with other tools.

Thesis Code	good	OK	poor	insufficient
Design architecture, algorithms, data structures, used technologies		X		
Implementation naming conventions, formatting, comments, testing	X			
Stability		X		

The implementation part of this thesis is of very high quality. The structure of the project is very well though and the orientation within the project is very straightforward. The library can be easily integrated to existing code base and requires almost no "boiler-plate" code. Author also showcases two examples of usage of the library which nicely demonstrates the capabilities and mostly clean syntax. The library is thoroughly tested and is very well documented.

Overall grade Výborně Award level thesis Ne

Date Signature