



ASSIGNMENT OF MASTER'S THESIS

Title: Improvements of the RIR bytecode toolchain
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Study Programme: Informatics
Study Branch: System Programming
Department: Department of Theoretical Computer Science
Validity: Until the end of winter semester 2018/19

Instructions

Familiarize yourself with the R language, its bytecode compiler, and interpreter architecture. Familiarize yourself with RIR, an alternative bytecode format, compiler, and interpreter for the language. The R bytecode compiler assumes certain invariants (such as built-in meaning of control flow statements and certain operators) about the code to make the compiled code faster. Analyze similar assumptions that are used by RIR and extend RIR to use assumptions made by GNU-R as well. Identify and implement improvements to the RIR (compiler, bytecode format, and interpreter). Discuss your results.

References

Will be provided by the supervisor.

doc. Ing. Jan Janoušek, Ph.D.
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prof. Ing. Pavel Tvrdík, CSc.
Dean

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