

Science Faculty of Computer Science 2007–2008 Seminar Series

The Unwelcome Visitor -- how an inefficient software construct can be made much faster

By

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When constructing software, design patterns are useful in decoupling various design choices, thus leading to software which is more extensible and generally easier to modify. However they can also lead to source code which compiles into less efficient machine code. As our example, we examine the visitor pattern which is the recommended object-oriented approach to traversing trees and graphs. The usual implementation of the pattern in Java or C# requires to virtual dispatches to traverse from one node to the next. We show how some simple code transformations that should be easily possible in JIT compiler result in much more efficient execution.

STUDENTS ARE ENCOURAGED TO ATTEND