

You are invited to the 46<sup>th</sup> edition of the PRAGUE COMPUTER SCIENCE SEMINAR

JAROSLAV TULACH

# GraalVM – the fastest virtual machine

January 30, 2020  
4:15pm

Auditorium KN:E-301,  
FEL CTU, Karlovo nám. 13,  
Praha 2

*The lecture will be followed by a discussion*

## ABSTRACT

A new programming language is created every fortnight. Usually, the designers start by creating a syntax tree interpreter, and then the language is shown to potential users. Users find the language great, but just a little too slow. So the creators design a byte code and the program is translated into the byte code before it is run. That certainly helps, but the language is still rather crawling... GraalVM wants to change this state of affairs. You can write your syntax tree interpreter using our API and we will make everything fast! To convince you that this is for real, I will show you that our Ruby implementation is ten times faster than other implementations. Come to see how to create the fastest environment for running your favorite programming language.

## ABOUT THE PRAGUE COMPUTER SCIENCE SEMINAR

The seminar takes place once a month on Thursdays at 4:15pm (except June to September, and December) alternately in the buildings of Faculty of Electrical Engineering, Czech Technical University in Prague, Karlovo nám. 13, Praha 2 and Faculty of Mathematics and Physics, Charles University, Malostranské nám. 25, Praha 1. Its program typically consists of a one-hour lecture followed by a discussion. The lecture is based on an (internationally) exceptional or remarkable achievement of the lecturer, presented in a way which is comprehensible and interesting to a broad computer science community. The lectures are in English.



**Jaroslav Tulach** is the founder and initial architect of NetBeans, later acquired by Sun Microsystems, which is now part of the Oracle Corporation. NetBeans started as a software project during his study at the Faculty of Mathematics and Physics of Charles University. Netbeans is not only a development environment, but above all the first modular platform for writing desktop Java applications. When designing the NetBeans API, he saw, made, and helped fix more errors than could be counted - which qualified him to write the book „Practical API Design“. Currently, he is helping OracleLabs create the virtual machine GraalVM.

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