



# 2011

#### Education

**Master's degree programme**, *Faculty of Informatics Masaryk University*, Brno. Field of study: Parallel and Distributed Systems

2008

**Bachelor's degree programme**, *Faculty of Informatics Masaryk University*, Brno. Field of study: Parallel and Distributed Systems

### Parallelization of Methods for Dynamic System Analysis Using CUDA

Bachelor Thesis

The thesis presents a procedure of the parallelization a numerical simulation over a large amount of initial points. Methods for numerical simulations have been implemented so that they can be run on a graphics card while using the CUDA technology through the Java interface.

□ www.is.muni.cz/th/325494



## Academic Experience

**Systems Biology Laboratory**, *Faculty of Informatics Masaryk University*, Brno. Development of a tool for analysis of dynamic systems

□ Botanická 68a, 602 00 Brno, Czech Republic □ +420 549 495 990 □ sybila@fi.muni.cz □ sybila.fi.muni.cz

#### Parasim – Tool for Paralell Simulations and Verification

Research Project

The tool analyzes dynamic systems specified in terms of ordinary differential equations. As a feature distinct from existing tools used for dynamic systems analysis and temporal properties monitoring, the tool is based on a modular architecture. This facilitates optimization and parallelization of individual modules and algorithms employed for analysis, as well as implementation of additional functionality.

 $\ \ \, \square \ \, www.github.com/sybila/parasim$ 



**Teaching Assistant**, Faculty of Informatics Masaryk University, Brno. Java, Algorithm Design II and Introduction to Functional Programming

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# Working Experience

Quality Assurance Associate, Red Hat Czech, Ltd., Brno.

Development of automated tests for RichFaces project, contributing to Arquillian project

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Skills

programming

Java<sup>†</sup>, PHP<sup>†</sup>, Bash<sup>†</sup>, Scala\*, Haskell\*, R\*, Python\*, C for CUDA\*

technologies

theory

GIT<sup>†</sup>, SVN\*, MySQL<sup>†</sup>, LaT<sub>F</sub>X<sup>†</sup>, Beamer<sup>†</sup>, Linux<sup>†</sup>, Maven<sup>†</sup>, Arguillian<sup>‡</sup>, Selenium<sup>†</sup>

formal verification, algorithm design, parallel computing

<sup>\*</sup>familar with

<sup>†</sup>active usage

<sup>‡</sup>contributor

#### Online Courses

#### **Computing for Data Analysis**

 $\square$  https://www.coursera.org/course/compdata

#### **Functional Programming Principles in Scala**

 $\square$  https://www.coursera.org/course/progfun

#### Web Intelligence and Big Data

 $\square$  https://www.coursera.org/course/bigdata

#### Algorithms, Part I

 $\begin{tabular}{ll} \hline \square \ https://www.coursera.org/course/algs4partl \\ \hline \end{tabular}$ 



#### **Projects**

Leganto, co-founder and main developer.

Web page for managing read books and finding similar books

☐ leganto.cz

2008

**KSI**, co-organizer (participant previously).

Correspondence Seminar from Informatics, under the auspices of Faculty of Informatics MU.

☐ ksi.fi.muni.cz

Lužánky, course instructor.

Teaching courses focused on programming in Java and webdesign at leisure time center

☐ www.luzanky.cz

**Intersob**, co-organizer and developer of evaluation system.

City game focused on high school students, under the auspices of MU.

☐ ganymed.math.muni.cz/intersob

**Interlos**, co-organizer and developer of evaluation system.

Online programmer contest, under the auspices of Faculty of Informatics MU

☐ interlos.fi.muni.cz

K-SCUK, co-organizer.

One-week long event for participants of correspondence seminars MU.

□ kscuk.zimodej.cz

# Languages

Czech Native speaker

English Intermediate

#### Interests

Games Role playing games, board games, cipher games.

Sport Squash, frisbee.

Books Fantasy, sci-fi.