

Jaroslav Ševčík

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Research interests

Programming languages and shared-memory concurrency. Proof-carrying code, automated theorem proving.

Peer-reviewed papers

Jaroslav Ševčík, David Aspinall. *On Validity of Program Transformations in the Java Memory Model*. In ECOOP 2008. pp27–51, LNCS 5142, Springer-Verlag.

David Aspinall, Jaroslav Ševčík. *Formalising Java’s Data Race Free Guarantee*. In TPHOLs 2007. pp22–37, LNCS 4732, Springer-Verlag.

David Aspinall, Jaroslav Ševčík. *Java memory model examples: Good, bad and ugly*. In VAMP 2007. Technical Report ICIS-R07021, Radboud University Nijmegen.

Jaroslav Ševčík. *Proving Resource Consumption of Low-level Programs Using Automated Theorem Provers*. In Bytecode 2007, pp133–147, ENTCS 190/1, Elsevier.

Education

2005 – present UNIVERSITY OF EDINBURGH, UK. Ph.D. program, transferred from Rutgers University. Advisor: David Aspinall. Ph.D. thesis: “Program transformations in weak memory models”.

2004 – 2005 RUTGERS UNIVERSITY, DEPARTMENT OF COMPUTER SCIENCE, NJ, USA. Ph.D. program. Focus on algorithms and computational complexity.

1994 – 1999 CHARLES UNIVERSITY, FACULTY OF MATHEMATICS AND PHYSICS¹, COMPUTER SCIENCE. Master’s thesis topic - ”Translation of projective dependency structures into surface word order“².

¹<http://www.mff.cuni.cz>

²This research was done at the Institute of Formal and Applied Linguistics.

Awards

2005 – 2008	EPSRC GRANT – Resource Quantification in e-Science Technologies.
2004 – 2005	RUTGERS FELLOWSHIP.
1994 – 1997	CHARLES UNIVERSITY PERFORMANCE SCHOLARSHIP.
1994	HIGH HONORS. HIGH-SCHOOL DEGREE (“Maturita“)
1994	NATIONAL OLYMPIAD IN INFORMATICS – 5 th place.
1994	NATIONAL OLYMPIAD IN MATHEMATICS – 13 th place.

Work experience

2008 – 2009	UNIVERSITY OF EDINBURGH. Research Engineer, developing static analyses for multi-threaded programs.
2002 – 2004	FFASTFILL PLC. ³ , PRAGUE, LONDON. Senior C++ programmer, in 2003 promoted to a project manager (coordinated team of 8 developers). Responsible for redesign and development of the server part of a distributed high-performance fault-tolerant application for financial derivative trading.
1997–2001	LABORATORY IMAGING S.R.O. ⁴ , PRAGUE. C and C++ programmer, team leader.
SUMMER 2000	CHEMOPETROL A.S., THE CZECH REPUBLIC. Complete implementation of a DB system for document tracking.

Teaching experience

Fall 2005, 2006, 2007	UNIVERSITY OF EDINBURGH. Algorithms and Data Structures. Tutoring.
Spring 2005	RUTGERS UNIVERSITY. Principles of Programming Languages. Tutoring, grading homeworks/exams.
Fall 2004	RUTGERS UNIVERSITY. Numerical Analysis. Tutoring, grading homeworks/exams, occasional lectures.

Computer skills

Programming Languages. Large (industrial) projects: C, C++, C#, Transact-SQL, MS Visual Basic. Smaller (research) projects: OCaml, Moscow ML, Java, Python. HTML, L^AT_EX.

Technologies. Microsoft.NET. MS Windows clustering. Tibco middleware. (D)COM(+).

Other interests

Reading books, playing cards, mountain biking.

³<http://www.ffastfill.com>

⁴<http://www.lim.cz> The company develops image analysis software, which is used for medical, forensic and material science purposes.