

Scientific CV of Jan Jakubův

Personal Data

Born October 28, 1981 in Vlašim, Czech Republic. Czech nationality and citizenship.

email: jakubuv@gmail.com

Education Relevant Timeline

October 2010 PhD in Computer Science (Computing): “*Generic Process Shape Types and the POLY★ System*”, School of Mathematical and Computer Science, Heriot-Watt University, Edinburgh. Supervisors: Dr. J. B. Wells and Prof. F. Kamareddine.

February 2007 Started PhD study under the supervision of Dr. J. B. Wells and Prof. F. Kamareddine. School of Mathematical and Computer Science, Heriot-Watt University, Edinburgh.

December 2006 Received an EPSRC Studentship to undertake a postgraduate study at Heriot-Watt University in Edinburgh, funded by EPSRC grant EP/C013573/1.

November 2006 M.S. in Informatics (Theoretical Computer Science): “*Automated Theorem Proving Using the Tableaux Methods*”, Faculty of Mathematics and Physics, Charles University, Prague. Supervisor: Prof. Petr Štěpánek.

September 2000 Started M.S. studies of Informatics at Faculty of Mathematics and Physics, Charles University, Prague.

Research Interests

Automated Theorem Proving, Tableaux Methods. Automated theorem proving has manifold applications including software verification, hardware verification, and interactive proving of mathematical theorems. Applications of automated theorem proving in practice are usually expensive (w.r.t. both time and resources) and further development of provers efficiency can make automated theorem proving more applicable. In my master thesis I have studied the problem of automated theorem proving in the First-Order Logic with equality using the tableaux methods. I am interested in development and improvements of automated deduction methods and their application in practice.

Process Calculi, Type Systems. Process calculi are used to model environments with several interacting units. The main aim is to predict environment behavior and to study environment properties. Type systems are used ensure that environments satisfy chosen requirements. In my PhD thesis I have studied a generic process calculus type system POLY★ which can be used to verify manifold properties of various environments. I am interested in various applications of process calculi and type systems in practice as well as in their theoretical development. I am interested in applications of type systems to automated theorem proving.

Publications

- [1] Jan Jakubův. Generic Process Shape Types and the POLY* System. *PhD thesis, Heriot-Watt University in Edinburgh*, October 2010.
- [2] Jan Jakubův and J. B. Wells. Expressiveness of Generic Process Shape Types. In *M. Wirsing, M. Hofmann, A. Rauschmayer (Eds.): TGC 2010, LNCS 6084, pp. 103-119*. Springer-Verlag Heidelberg 2010.
- [3] Jan Jakubův and J. B. Wells. The Expressiveness of Generic Process Shape Types. *Technical Report TR-HW-MACS-0069, Heriot-Watt University in Edinburgh*, July 2009.
- [4] Jan Jakubův. Automated Theorem Proving Using the Tableaux Methods. *Master thesis (unpublished), Charles University in Prague*, November 2006.

Languages

English School Leaving Exam since 2000

Czech native speaker

Programming Languages

advanced knowledge: Haskell, C/C++, C#, Python, Prolog.

basic knowledge: Perl, Java, ML, PHP, SQL, Postscript, Lua, F#, sh, bash, Awk.

Administrative

2009 Helper at ICFP 2009

2008 Helper at WoLLIC 2008

Work Experience

from Sep 2006 to Jan 2007 Part-time teaching assistant at Faculty of Mathematics and Physics, Charles University, Prague.

from 2003 to 2006 C# software developer of a machine vibration diagnostic software for CMMS, s.r.o.

from 2001 to 2003 Linux server system administrator at Raventia, s.r.o.