

Europass Curriculum Vitae



Personal information

Surname(s) / First name(s) **Ráth, István**
 Telephone(s) +36 1 463 35 79
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 Email(s) rath@mit.bme.hu
 Nationality(-ies) Hungarian
 Date of birth July 13, 1982
 Mother tongue(s) **Hungarian**

Self-assessment European level^(*)

English
German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

^(*) Common European Framework of Reference (CEF) level

Language certificates

English Hungarian State Proficiency certificate
 German Hungarian State Intermediate certificate

Education

PhD in Software Engineering 2006- Budapest University of Technology and Economics, Department of Measurement and Information Systems
 MSc in Computer Engineering 2001-2006 Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics
 International Baccalaureate 1996-2001 Karinthy Frigyes High School, 43 out of 45 points (excellent)

Scholarships, Awards

2009 ACM Distinguished Paper Award and IEEE Best Paper of the Conference Award, at the 12th International Conference on Model Driven Engineering Languages and Systems (MODELS'09).
 2009 PhD Doctoral Candidate Scholarship of the Budapest University of Technology and Economics.
 2007 Pro Scientia Award by the National Council of the Hungarian Scientific Students' Association.
 2007 First Prize at the 2007 National Scientific Students' Association conference.
 2005 First Prize at the 2005 BUTE Scientific Students' Association conference.
 2005/2006 Scholarship of the Republic of Hungary.

Research Activity

2004- Since 2004 I have been involved in the VIATRA2 research project of BUTE's Department of Measurement and Information Systems. I am currently the chief technological architect of the developer team behind the open source VIATRA2 modeling and model transformation framework, which is being used in various international and EU-funded academic and industrial research projects (DECOS, SENSORIA, DIANA, MOGENTES, SecureChange).
More information available at: <http://eclipse.org/gmt/VIATRA2>

Competitions

ACM International Collegiate
Programming Contest

2004 Central European Finals, Honorable Mention
2004 Hungarian National Finals, 3. place
2003 BUTE Finals, 4. place

Skills and competences

Programming languages C/C++ (STL), Java, C#, Prolog, SML, SQL, PL/SQL, PHP, Python, OpenGL, Javascript
Technologies Eclipse, Microsoft Visual Studio, GCC
Platforms Linux/QT, Windows, .NET, Symbian, J2EE, J2ME, Java/SWT
Methodologies Model-driven software engineering, model transformations, domain-specific modeling languages, code generation

Educational activity

2010- Model-driven software design (BUTE course contributor, one semester)
2010- Service integration (BUTE course contributor), one semester)
2010- Eclipse-based Development and Integration (BUTE course lecturer, one semester)
2009- Eclipse Technologies (BUTE course lecturer, two semesters)
2007- UML-based modeling and analysis (BUTE course instructor, 3 semesters)
2006- Eclipse software development (industrial courses for OptxWare Research and Development LLC, 6 courses)
2005- Open Development Systems (BUTE course instructor and lecturer, 4 semesters)
2005-2006 Declarative programming (BUTE course instructor, 3 semesters)
2005-2006 Computer Programming 5 (BUTE course instructor, 2 semesters)
Fall 2004 Computer Networks (BUTE course)

Publication

MODELS 2010 Gábor Bergmann, Ákos Horváth, István Ráth, and Dániel Varró. Incremental evaluation of model queries over emf models. In *Proc. of MODELS'10, CM/IEEE 13th International Conference On Model Driven Engineering Languages And Systems*, 2010. Accepted

SEFM 2010 Ábel Hegedüs, István Ráth, and Dániel Varró. Back-annotation of Simulation Traces with Change-Driven Model Transformations. In *Proceedings of the Eighth International Conference on Software Engineering and Formal Methods*, 2010. Accepted

ASMTA 2010 Ajab Khan, Reiko Heckel, Paolo Torrini, and István Ráth. Model-based stochastic simulation of p2p voip using graph transformation. In *Proceedings of the 17th International Conference on Analytical and Stochastic Modeling Techniques and Applications*, 2010

GT-VMT 2010 Paolo Torrini, Reiko Heckel, István Ráth, and Gábor Bergmann. Stochastic graph transformation with regions. *Electronic Communications of the EASST, Proceedings of the Ninth International Workshop on Graph Transformation and Visual Modeling Techniques*, 2010

FASE 2010 Paolo Torrini, Reiko Heckel, and István Ráth. Stochastic simulation of graph transformation systems. In *Proc. of FASE2010, Fundamental Approaches to Software Engineering*, 2010. Accepted

SENSORIA-2 2010	Gábor Bergmann, Artur Boronat, Reiko Heckel, Paolo Torrini, István Ráth, and Dániel Varró. <i>Rigorous Software Engineering for Service-Oriented Systems - Results of the SENSORIA project on Software Engineering for Service-Oriented Computing</i> , chapter Advances in model transformation by graph transformations: Specification, Analysis and Execution. Springer, 2010
SENSORIA-1 2010	Philip Mayer and István Ráth. <i>Rigorous Software Engineering for Service-Oriented Systems - Results of the SENSORIA project on Software Engineering for Service-Oriented Computing</i> , chapter The SENSORIA Development Environment. Springer, 2010
FMN 2009	András Pataricza, Dániel Varró, István Majzik, Balázs Polgár, István Ráth, and Ákos Horváth. <i>Festschrift for Manfred Nagl (65th birthday)</i> , volume 5765 of <i>Lecture Notes in Computer Science Festschrift</i> , chapter Workflow-driven tool integration using model transformations. Springer, 2009. Accepted
MODELS 2009	István Ráth, Gergely Varró, and Dániel Varró. Change-driven model transformations. In <i>Proc. of MODELS'09, ACM/IEEE 12th International Conference On Model Driven Engineering Languages And Systems</i> , volume 5795/2009 of <i>Lecture Notes in Computer Science</i> , pages 342–356, 2009
STTT 2009	Gábor Bergmann, Ákos Horváth, István Ráth, and Dániel Varró. Experimental assessment of combining pattern matching strategies with VIATRA2. <i>Journal of Software Tools in Technology Transfer</i> , 2009. To appear
SoSym 2009	István Ráth, András Ökrös, and Dániel Varró. Synchronization of abstract and concrete syntax in domain-specific modeling languages. <i>Journal of Software and Systems Modeling</i> , 2009. To appear
MDTPI 2009	Balázs Polgár, István Ráth, Zoltán Szatmári, and István Majzik. Model-based Integration, Execution and Certification of Development Tool-chains. In <i>2nd ECMDA Workshop on Model-Driven Tool and Process Integration, 2009</i>
Tavaszi Szél 2009	István Ráth. Modelltranszformációk integrált alkalmazása domain-specifikus nyelvekben. In <i>Tavaszi Szél Konferenciakiadvány, 2009</i>
ICMT 2009	Gábor Bergmann, Ákos Horváth, István Ráth, and Dániel Varró. Efficient model transformations by combining pattern matching strategies. In <i>Proc. of ICMT'09, 2nd Intl. Conference on Model Transformation</i> . Springer, 2009
GT-VMT 2009	Gábor Bergmann, István Ráth, and Dániel Varró. Parallelization of graph transformation based on incremental pattern matching. <i>Electronic Communications of the EASST, Proceedings of the Eighth International Workshop on Graph Transformation and Visual Modeling Techniques</i> , 18, 2009
VL/HCC 2008	István Ráth, Dávid Vágó, and Dániel Varró. Design-time Simulation of Domain-specific Models By Incremental Pattern Matching. In <i>2008 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)</i> , 2008
ICGT 2008	Gábor Bergmann, Ákos Horváth, István Ráth, and Dániel Varró. A Benchmark Evaluation of Incremental Pattern Matching in Graph Transformation. In <i>ICGT2008, The 4th International Conference on Graph Transformation</i>
ICMT 2008	István Ráth, Gábor Bergmann, András Ökrös, and Dániel Varró. Live model transformations driven by incremental pattern matching. In <i>Theory and Practice of Model Transformations</i> , volume 5063/2008 of <i>LNCS</i> , pages 107–121. Springer Berlin / Heidelberg, 2008
GRaMoT 2008	Gábor Bergmann, András Ökrös, István Ráth, Dániel Varró, and Gergely Varró. Incremental pattern matching in the VIATRA transformation system. In <i>GRaMoT'08, 3rd International Workshop on Graph and Model Transformation</i> . 30th International Conference on Software Engineering, 2008
DSPD 2006	István Ráth and Dániel Varró. Challenges for advanced domain-specific modeling frameworks. In <i>International Workshop on Domain Specific Program Development (DSPD 2006)</i> , Nantes, France, July 2006
CSCS 2006	István Ráth. Declarative mapping between abstract and concrete syntax of domain-specific visual languages. In <i>The Proceedings of the Fifth Conference of PhD Students in Computer Science</i> , 2006