

## Tomáš Horváth

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PERSONAL DATA	Born on 5th of October, 1976 in Košice, Slovak Republic male, divorced (without children)
CONTACT INFORMATION	<i>e-mail:</i> horvathtomi1976@gmail.com <i>www:</i> <a href="http://www.data-mining.sk">http://www.data-mining.sk</a> <i>Skype:</i> horvathtomi76
RESEARCH INTERESTS	Recommendation and Personalization techniques, User-Modeling, Data Mining, Pattern Mining, Relational Learning, Fuzzy Logic, Artificial Intelligence
EDUCATION	<b>Ph.D. in Computer Science</b> September, 2008 <i>Institute of Computer Science, Pavol Jozef Šafárik University in Košice, Slovakia</i> – Thesis Title: User Preference Learning by Induction of Fuzzy and Annotated Logic Programs – Supervisor: Prof. Peter Vojtáš, Charles University in Prague, Czech Republic <b>MSc. in Computer Science</b> June, 2002 <i>Institute of Computer Science, Pavol Jozef Šafárik University in Košice, Slovakia</i> – Thesis Topic: Inductive Logic Programming – Supervisor: Prof. Peter Vojtáš, Pavol Jozef Šafárik University in Košice, Slovakia
ACADEMIC APPOINTMENTS	<b>Post-doc Researcher</b> accepted <sup>1</sup> from June, 2015 – May, 2016 <i>Department of Computer Science, University of São Paulo, Brasil</i> – Nature-Inspired Techniques in Recommender Systems <b>Assistant Professor</b> October, 2012 – May, 2015 <i>Institute of Computer Science, Pavol Jozef Šafárik University in Košice, Slovakia</i> – Educational Data Mining, Recommendation Techniques, Pattern Mining <b>Post-doc Researcher</b> October, 2009 – September, 2012 <i>Information Systems &amp; Machine Learning Lab, University of Hildesheim, Germany</i> – Recommender Systems, Educational Data Mining, Pattern Recognition <b>Research Fellow, Post-doc researcher</b> November 2003 – September 2009 <i>Institute of Computer Science, Pavol Jozef Šafárik University in Košice, Slovakia</i> – Induction of Fuzzy Logic Programs, Relational Learning, User Modeling
SKILLS	<b>programming</b> experience in Java, PHP, Prolog, C, R, Weka, MySQL <b>languages</b> <i>Hungarian</i> (mother language), <i>Slovak</i> (native speaker), <i>English</i> (advanced) good <b>communication</b> and <b>organization</b> skills – absolved <i>courses on Project and Human Resource management</i> in 2008 research <b>proposal writing</b> and <i>co-ordination</i> skills – EU FP7, EU COST, Czech-Slovakian and Hungarian-Slovakian bi-lateral projects, Slovakian research agencies, Slovakian Infrastructural projects
PUBLICATION STATISTICS	1 book chapter 4 proceedings 8 journal articles 27 conference papers (17 in Springer/IEEE/ACM/IET proceedings) 12 workshop papers 5 posters/extended abstracts 6 papers written in Slovak language

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<sup>1</sup>The contract is not yet signed in the time of my application for the position. The expected start of the internship is on 15th June, 2015

RESEARCH  
PROJECTS

- † *Supervised Educational Recommender System* (**co-ordinator**)
- † *University Science Park TECHNICOM with focus on the innovation applications using knowledge based technologies* (**work package manager**)
- † *Center of of knowledge and information systems in Košice* (**work package manager**)
- † *Scalable computational methods for acquisition, analysis and organization of data with elements of uncertainty* (investigator)
- † *A flexible recommender system* (**principal investigator**)
- † *Methods of the analysis of structured and unstructured data with elements of imperfection and their utilization in intelligent search* (investigator)
- † *Formal models motivated by requirements of semantic web and their experimental verification* (investigator)
- † *Tools for acquisition, organization and maintenance of knowledge in an environment of heterogeneous information resources* (investigator)
- † *Methods of semantic web* (investigator)
- † *Dynamic search of the k-best relevant objects* (investigator)
- † *Intelligent search, transfer and process of information* (investigator)

ACTIVITIES

**Steering Committee** member of *ITAT* and *Znalosti*

**Program Committee** member of *RuleML Challenge'15*, *RecSysRules'15*, *ITAT*, *Znalosti*, *PALE*

**Organization** of *PALE'15*, *Znalosti'14* and *DATAKON'14*, *SOFSEM* ('08 and '14), *ITAT* (2005–2014), *FactMod'12*, *CS-RDM* ('07 and '09), *WDA'05*

**Ph. D. Commission** member

- M. Repka: Company Network Analysis. 2013, Technical University in Košice
- Z. Gantner: Supervised Machine Learning Methods for Item Recommendation. 2012, University of Hildesheim
- A. Krohn-Grimberghe: Analysis and Evaluation of Multi-relational Recommender Systems. 2012, University of Hildesheim
- T-N. Nguyen: Predicting Student Performance in an Intelligent Tutoring System. 2012, University of Hildesheim
- K. A. Buza. Fusion Methods for Time-Series Classification. 2011, University of Hildesheim
- Ch. Preisach: Relational Semi-Supervised Classification Using multiple Relations. 2010, University of Hildesheim
- L. Balby Marinho: Recommender Systems for Social Tagging Systems. 2010, University of Hildesheim
- S. Rendle: Context-aware Ranking with Factorization Models. 2010, University of Hildesheim

RELATED  
TEACHING  
EXPERIENCE

**Lectures**

- *Data Mining Techniques* (MSc Course, UPJŠ Košice)
- *Introduction to Data Mining* (BSc Course, UPJŠ Košice)
- *Basics of Knowledge Systems* (MSc Course, UPJŠ Košice)
- *Artificial Intelligence* (BSc Course, University of Hildesheim)
- *Business Analytics* (MSc Course, University of Hildesheim)
- *Business Intelligence* (BSc Course, University of Hildesheim)

**Seminars**

- *Data Mining* (UPJŠ Košice)
- *Applied Computer Science* (UPJŠ Košice)
- *Logic of Information Systems* (UPJŠ Košice)
- *Machine Learning and Artificial Intelligence* (University of Hildesheim)
- *Business Intelligence* (UPJŠ Košice)

**Tutorials/Practices**

- *Programming, Algorithms and Complexity* (UPJŠ Košice)
- *Logic Programming* (UPJŠ Košice)
- *Computational Logic* (UPJŠ Košice)
- *Introduction to Informatics* (UPJŠ Košice)
- *Database Systems* (UPJŠ Košice)

**PhD. theses** supervision

- Tomáš Jakab: Complex Context-Aware Recommendation Techniques. Ongoing (supervisor)
- Štefan Pero: Educational Data Mining. Ongoing. (supervisor)
- Lenka Pisková: Algorithms to Construct and Reduce the Size of Concept Lattices. UPJŠ Košice, 2013. (co-supervisor)
- Thai-Nghe Nguyen: Predicting Student Performance in an Intelligent Tutoring System. University of Hildesheim, 2012 (co-supervisor)

**MSc. theses** supervision

- Dominik Imrich: Analyzis, implementation and testing of recommendation techniques in real environments. UPJŠ Košice, ongoing. (supervisor)
- Štefan Bocko: Web-based data mining assistant. UPJŠ Košice, 2015. (supervisor)
- Tomáš Nguyen: Supervised recommendation in an intelligent tutoring system for programming. UPJŠ Košice, 2015. (supervisor)
- Július Pál: Prediction of possible disease appearance in a population using data mining techniques. UPJŠ Košice, 2014. (supervisor)
- Tomáš Jakab: Relational classification. UPJŠ Košice, 2014. (supervisor)
- Stephan Reller: Conception and Implementation of a Sentiment Analysis System. University of Hildesheim, 2012. (supervisor)
- Marek Daňko: Training information system with planning. UPJŠ Košice, 2012. (supervisor)
- Maroš Andrejko: Outlier detection for monotone classification. UPJŠ Košice, 2012. (supervisor)
- Maroš Dzuriš: User preference learning in faceted browser. UPJŠ Košice, 2012. (supervisor)
- Štefan Pero: Distributive data mining. UPJŠ Košice, 2011. (supervisor)
- Ľubomír Didnianský: The GoleMy System. UPJŠ Košice, 2009. (supervisor)
- Ján Bella: Ordinal classification via ILP. UPJŠ Košice, 2006. (co-supervisor)
- Martin Kucirka : Classification of graded data via inductive logic programming. UPJŠ Košice, 2006. (co-supervisor)

**BSc. theses** supervision

- Martin Jobbágy: Utilizing frequent itemset mining for recommendation. UPJŠ Košice, ongoing. (supervisor)
- Ján Dudáš: Analysis of algorithms for gene transcription. UPJŠ Košice, ongoing. (supervisor)
- Dominik Imrich: Pattern mining in the JEM-EUSO experiment. UPJŠ Košice, 2014. (supervisor)
- Marek Daňko: Training information system with planning. UPJŠ Košice, 2010. (supervisor)
- Maroš Andrejko: Categorization of supply points wrt. possible unauthorized electric energy consumption. UPJŠ Košice, 2010. (supervisor)
- Maroš Dzuriš: User preference learning in faceted browser. UPJŠ Košice, 2010. (supervisor)
- Matej Lazár: Preference learning. UPJŠ Košice, 2009. (supervisor)
- Adrián Krajník: Mining frequent sequences of events. UPJŠ Košice, 2009. (supervisor)
- Štefan Pero: Winston – data mining assistant. UPJŠ Košice, 2009. (supervisor)
- Marek Varchula: Intelligent data mining asistant. UPJŠ Košice, 2008. (supervisor)
- Štefan Ontkovič: Supportive software for programming NC machines. UPJŠ Košice, 2008. (supervisor)

- Tomáš Lacko: Least relative generalization in MySQL. UPJŠ Košice, 2007. (supervisor)

MISC

**Invited talk** on *Matrix Factorization Techniques for Recommender Systems* at the Colloquium of DSE, Faculty of Mathematics and Physics, Charles University, Prague at 26th November, 2012

**Tutorial** on *Recommender Systems* at the conference Znalosti 2012, Mikulov, Czech Republic

**Research visits**

- Laboratory of Information Technologies, *Joint Institute of Nuclear Research*, Dubna, *Russia* (3 months in 2014)
- Department of Software Engineering, Faculty of Mathematics and Physics, *Charles university in Prague, Czech Republic* (1 month in 2007)
- *University of Malaga, Spain* (1 week in 2006)

HOBBIES

**folk dance** – at the Ilosvai Folk Ensemble in Vel'ká Ida, Slovakia (since 1996)

**sports** – table tennis, ball games, swimming, hiking

**reading** and **cinema**

In Košice, 11th November, 2015

Dr. Tomáš Horváth