

Vladimir Kolovski

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Research Interests

- Access Control logic-based policies, policy analysis and verification
- Automated Reasoning tableau-based description logic reasoning, integrating description logics with rules and defaults

Education

- 2004–Present **PhD Candidate in Computer Science, University of Maryland – College Park.**
GPA: 3.91/4.00
Thesis: *Logic-based Analysis of XACML Policies*
Advisor: James Hendler
Expected graduation: Spring 2008
- 2000–2004 **Bachelor of Arts, American University in Bulgaria.**
Summa cum laude
Double Major in Mathematics and Computer Science (3.98 Major GPA)

Experience

- August 2004–Present **University of Maryland – College Park.**
Graduate Research Assistant – MINDSWAP Research Group
- Developed a description logic based framework for analyzing security policies
 - Implemented policy analyzers for languages such as WS-Policy and XACML
 - Researched techniques for integration of rules and nonmonotonic reasoning with DL reasoners
- Summer 2007 **Clark & Parsia LLC – Arlington, VA.**
Intern – Policy Management
- Designed and implemented a logic-based XACML Policy management tool
- Summer 2006 **Oracle NEDC – Nashua, NH.**
Research Intern – Semantic Technologies
- Extended and optimized reasoning support in Oracle 11g
 - Designed and implemented query answering techniques for RDFS and OWL
 - Implemented various optimizations for rules reasoners
- Summer 2003 **Weblang.net – Sofia, Bulgaria.**
Software Developer
- Was technical lead of the team that developed a corporate web site and an internal ERP system for a leading Bulgarian real estate company (Address.bg)
 - Designed the architecture of the application, developed the business logic in ASP.NET and designed the database and stored procedures in SQL Server 2000
 - Assigned tasks and oversaw work of junior developers
- March 2001–May 2003 **Newgensolutions – Blagoevgrad, Bulgaria.**
Senior Software Developer
- Developed web-based software applications using C#, VBScript and Javascript
 - Designed databases and developed stored procedures for financial applications

Computer skills

OS	Windows, Linux, Unix	semweb	RDF, RDF(S), OWL, OWL-API, Jena
programming	JAVA, C/C++/C#, Pascal, OCaml	scripting	Python, PHP, ASP, VBScript, Javascript
web	XHTML, CSS, XML, DOM, XSLT	database	Oracle 11g, PL/SQL, SQLServer 7.0/2000, T-SQL
policies	XACML, EPAL, WS-Policy		

Graduate Level Coursework

AI	Natural Language Processing, Semantic Web, Processing Pictorial Information
SE	Program Analysis and Understanding, Research in Software Engineering
Systems	Computer Networks, Info-centric Design of Systems
Theory	Concrete Math, Computers and Games

Honors, Awards and Scholarships

- George Soros Scholarship, American University in Bulgaria 2000-2004
- Outstanding achievement in Mathematics and Computer Science, AUBG, April 2004
- Member of Dean's List and President's List for outstanding academic achievement, AUBG, 2001-2004
- Captain of AUBG team at the ACM South-East Europe regional programming contest, 2000,2001
- Member of AUBG programming team , ACM South-East Europe regional contest 2000-2003
- Bronze Medal, Balkan Olympiad in Informatics, Ohrid, Macedonia, 2000
- Bronze Medal, International Olympiad in Informatics, Antalia,Turkey, 1999

Publications

Christian Halaschek-Wiener, Jennifer Golbeck, Bijan Parsia, Vladimir Kolovski, and Jim Hendler. Image Browsing and Natural Language Paraphrases of Semantic Web Annotations. In *First International Workshop on Semantic Web Annotations for Multimedia (SWAMM)*, 2006.

Vladimir Kolovski and John Galletly. An E-Portfolio System for Student Outcomes Assessment. In *Proc. of the 17th International Conference on Systems for Engineering of Automation and Research*, September 2003.

Vladimir Kolovski and John Galletly. Towards E-Learning via the Semantic Web. In *Proc. of the International Conference on Computer Systems and Technologies*, June 2003.

Vladimir Kolovski and James Hendler. XACML Policy Analysis Using Description Logics. In *Submitted to Journal of Computer Security (JCS)*.

Vladimir Kolovski, James Hendler, and Bijan Parsia. Analyzing web access control policies. In *International World Wide Web Conference (WWW2007)*, 2007.

Vladimir Kolovski, Yarden Katz, James Hendler, Daniel Weitzner, and Tim Berners-Lee. Towards a Policy-Aware Web. In *First Semantic Web and Policy Workshop (SWPW)*, 2005.

Vladimir Kolovski and Bijan Parsia. WS-Policy and Beyond: Application of OWL Defaults to Web Service Policies. In *Second Semantic Web and Policy Workshop (SWPW)*, 2006.

Vladimir Kolovski, Bijan Parsia, and Yarden Katz. Implementing OWL Defaults. In *OWL: Experiences and Directions Workshop*, 2006.

Vladimir Kolovski, Bijan Parsia, Yarden Katz, and James Hendler. Representing Web Service Policies in OWL-DL. In *Proc. of the Int. Semantic Web Conference (ISWC)*, 2005.

Vladimir Kolovski, Bijan Parsia, and Evren Sirin. Extending SHOIQ(D) with DL-safe Rules: First Results. In *International Workshop on Description Logics (DL-2006)*, 2006.

Zhe Wu, George Eadon, Souripriya Das, Eugene Inseok Chong, Vladimir Kolovski, Melliyal Annamalai, and Jagannathan Srinivasan. Implementing an Inference Engine for RDFS/OWL Constructs and User-Defined Rules in Oracle. In *International Conference on Data Engineering (ICDE-2008)*, 2008.