# Siarhei Bykau

**Purdue University**
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## RESEARCH INTERESTS

Management of evolving data, data quality, recommender systems, machine learning, large scale integration of heterogeneous data, linked open data, semantic web and ontologies.

## EDUCATION

**Postdoctoral Associate in Computer Science, Purdue University**                     Jan 2014 - Now
West Lafayette, IN, USA
Topic: Research on data quality of user-generated and temporally evolving data sources.

**PhD in Computer Science, University of Trento**                     Nov 2008 - Apr 2013
Trento, Italy
Dissertation title: Exploiting the volatile nature of data and information in evolving repositories and systems with user generated content
Supervisor: Yannis Velegrakis

**M.Sc. in E-Government Technologies, University of Trento**                     Oct 2007 - Jul 2008
Trento, Italy
Dissertation title: Testing Domain Gate in the industrial context
Supervisor: Fabio Casati

**B.Sc., Radio Physics and Electronics Faculty, Belarusian State University**                     2002 - 2007
Minsk, Belarus
Dissertation title: Development of a SSO (Single Single-On) component in a complex information landscape
Supervisor: Ivan Shalatonin

## PROFESSIONAL EXPERIENCE

**Big Data Researcher, Trento Rise**                     May 2013 - Dec 2013
Trento, Italy
Designed and developed a topical crawler based on Apache Nutch.

**Java Developer, Artezio LLC**                     May 2007 - Oct 2007
Minsk, Belarus
Developed a system for online medical image management for Perceptive Informatics.

**Java Developer, EPAM Systems**                     Jul 2005 - May 2007
Minsk, Belarus
Developed ranking algorithms and authentication modules the search engine of the SAP NetWeaver platform.

## PUBLICATIONS

Journal Publications:
- **Bykau, S.**, Mylopoulos, J., Rizzolo, F., & Velegrakis, Y. On Modeling and Querying Concept Evolution. Journal on Data Semantics (JoDS), 2012

Refereed Publications:
- **Bykau, S.**, Korn, F., Srivastava, D., Velegrakis, Y. Controversy Detection in Wikipedia. International Conference on Very Large Data Bases (ICDE), 2015 (prepared for submission)
- **Bykau, S.**, Koutrika, G., Velegrakis, Y. On Dealing with the Permanent Coping with the Persistent Cold-start Problem. Personalized Access, Profile Management, and Context Awareness in Databases (PersDB), 2013
- **Bykau, S.**, Mylopoulos, J., Rizzolo, F., & Velegrakis, Y. Supporting Queries Spanning Across Phases of Evolving Artifacts using Steiner Forests. International Conference on Information and Knowledge Management (CIKM), 2011
- Katifori, A., Nikolaou, C., Platakis, M., Ioannidis, Y., Tympas, A., Koubarakis, M., Sarris, N., Tountopoulos, V., Tzoannos, E., **Bykau, S.**, Kiyavitskaya, N., Tsinaraki, C., Velegrakis, Y. The Papyrus digital library: discovering history in the news. International Conference on Theory and Practice of Digital Libraries (TPDL), 2011
- **Bykau, S.**, Kiyavitskaya N., Tsinaraki C., Velegrakis Y. Bridging the gap between heterogeneous and semantically diverse content of different disciplines. International Workshop on Flexible Database and Information System Technology (FlexDBIST), 2010.
- Rizzolo F., Velegrakis Y., Mylopoulos J., and **Bykau S.** Modeling concept evolution: a historical perspective. International Conference on Conceptual Modeling (ER), 2009.
- Presa, A., Velegrakis Y., Rizzolo R., and **Bykau S.** Modelling Associations through Intensional Attributes. International Conference on Conceptual Modeling (ER), 2009.

System Demonstrations:
- **Bykau, S.**, Rizzolo, F., Velegrakis, Y. A Query Answering System for Data with Evolution Relationships. SIGMOD Conference (SIGMOD), 2013

## RESEARCH EXPERIENCE

**Intern and then PhD candidate, University of Trento**                         May 2008 - Apr 2013
Trento, Italy
Topic: Managing and exploiting evolving data
Supervisor: Yannis Velegrakis
Designed and developed a system for managing and querying evolving data (TrenDS), a framework for detecting controversies and a prototype of recommender system which address new user and item cold start problem.

**Research Intern, AT&T Labs Inc., Shannon Lab**                                 May 2011 - Nov 2011
NJ, USA
Topic: Controversy Detection in Wikipedia Supervisor: Divesh Srivastava Designed, developed and studied a framework of controversy detection in Wikipedia.

**Research Intern, DeltaDator Spa**                                              Feb 2008 - Jul 2008
Trento, Italy
Topic: E-government public administration interoperability
Supervisor: Marco Pistore
Designed and developed a prototype that enables the interoperability among information systems of different public administration offices.

## TEACHING EXPERIENCE

**Teaching Assistant for Information Managements and Integration**     Fall08, Fall09, Fall10, Fall11
Master in eGovernment
Department of Information and Telecommunications
University of Trento, Italy


**Teaching Assistant for Advance Information Systems**                           Spring08, Spring09
Master in Computer Science
Department of Information and Telecommunications
University of Trento, Italy

## HONORS, AWARDS, ACHIEVEMENTS AND GRANTS

- PhD Scholarship, University of Trento, Nov 2008  Apr 2013
- The highest final mark (107 out of 110) at Master program, Jul 2008
- Intern Scholarship, University of Trento, May 2008  Jul 2008
- Winner (7th place) of BSU Olympiad in physics, May 2002
- Winner (3d place) of Olympiad in physics (Vitebsk region), Jan 2002
- Honorable mention at Republic Olympiad in physics, Mar 2001
- Winner (1st place) of Olympiad in physics (Vitebsk region), Jan 2001


## COMPUTER SKILLS

Java, SQL, R, Python


## MISCELLANEOUS

Languages: English (fluent), Italian (intermediate), Russian (native), Belarusian (native)
Chess: ELO Rating 2000