

Siarhei Bykau

Purdue University
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RESEARCH INTERESTS

Data Quality, Data Management, Machine Learning, Data Integration, Entity Linkage, Semantic Web.

EDUCATION

Postdoc/Visiting Assistant Professor in Computer Science, Purdue University Jan 2014 - Now
West Lafayette, IN, USA
Topic: Research on data quality of user-generated data sources
Supervisor: Sunil Prabhakar

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., & Velegarakis, Y. On Modeling and Querying Concept Evolution. *Journal on Data Semantics (JoDS)*, 2012

Refereed Publications:

- **Siarhei Bykau**, Evgeny Krivosheev and Sunil Prabhakar: Detecting and Leveraging Confused Observations in Truth Discovery. (*WSDM*), 2017 (submitted)
- Romila Pradhan, **Siarhei Bykau** and Sunil Prabhakar: Staging User Feedback toward Rapid Conflict Resolution in Data Fusion. (*SIGMOD*), 2017 (submitted)
- **Siarhei Bykau**, Jihwan Lee, Divesh Srivastava and Yannis Velegarakis: Contextual Linkage in Evolving Web Content (*SIGMOD*), 2017 (submitted)
- Jessica L. Yorzinski, Gail L. Patricelli, **Siarhei Bykau**, Michael L. Platt: Selective attention in peacocks during assessment of rival males. *The Journal of Experimental Biology*, 2017 (prepared for submission)
- **Bykau, S.**, Korn, F., Srivastava, D., Velegarakis, Y. Controversy Detection in Wikipedia. *International Conference on Data Engineering (ICDE)*, 2015
- **Bykau, S.**, Koutrika, G., Velegarakis, 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., & Velegarakis, 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., Velegarakis, 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., Velegarakis 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., Velegarakis Y., Mylopoulos J., and **Bykau S.** Modeling concept evolution: a historical perspective. *International Conference on Conceptual Modeling (ER)*, 2009.
- Presa, A., Velegarakis Y., Rizzolo R., and **Bykau S.** Modelling Associations through Intensional Attributes. *International Conference on Conceptual Modeling (ER)*, 2009.

System Demonstrations:

- **Bykau, S.**, Rizzolo, F., Velegarakis, 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 Velegarakis

Designed and developed a system for managing and querying evolving data and a prototype of recommender system which addresses the 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

Instructor for Introduction to Relational Database Systems

Spring'15

Computer Science Department, Purdue University, USA

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 CS, Department of Information and Telecommunications, University of Trento, Italy

HONORS, AWARDS, ACHIEVEMENTS AND GRANTS

- Kaggle Acquire Valued Shoppers Challenge, 54th/954, July 2014
- 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)

Chess: ELO Rating 2000