

Max Petrenko, Ph.D.

Contact information

Address

(in Russia): 22/1 Novgorodskaya Street, Apt 123, Moscow, 127576, Russia

Email: maxpetrenko@alumni.purdue.edu mpetrenk@gmail.com

Phone: +7-916-554-1765 (dial 011 before 7 when calling from the US)

URL: www.maxpetrenko.com

WORK EXPERIENCE

Work in NLP industry

February 2009 – August 2011

Employer: RiverGlass, Inc. Champaign, IL, USA

Position: lexicon acquirer, knowledge resource manager, senior ontologist (contractor)

Duties:

- Working in the team of computational linguists, software developers and market analysts. Providing linguistic input in the development of meaning-based information processing/clustering/retrieval application developed at RiverGlass, Inc. The Ontological Semantic technology developed by our research and development team brought the company a number of partnership deals in e-discovery and law enforcement, including a multimillion dollar investment package and government sales contract from Boeing.
- Acquisition and management of computational lexicon with the online acquisition/version control tool (GWT-based); providing complete semantic and syntactic coverage of open classes (verbs, nouns, adjectives, adverbs) and closed classes (pronouns, prepositions, conjunctions, modal expressions, etc.) of the English lexicon; calibrating semantic depth depending on the needs of an application;
- Acquisition and management of computational ontology within an offline and online acquisition and version control tool (GWT-based); performing domain-independent and domain-specific ontological acquisition tailored to the needs of an application;
- Lexicon and ontology synchronization and updating based on ongoing research and development progress;
- Participating in the development of NLP processing modules for semantics (processing prepositions, conjunctions, pronouns, numerals, nouns and proper nouns, adjectives, verbs, adverbs; modal expressions, unattested input, metonymy and implementing common sense

reasoning) and syntax (clause merging module, negation, passive constructions, syntactic coordination and morpho-syntactic agreement modules)

- Testing the NLP modules on the Enron email corpus, developing the gold standard with part of speech tagging; working closely with software development subgroup to adjust/improve semantic and syntactic processing algorithms;
- Coordinating and supervising work of junior lexicon and ontology acquirers; developing acquisition standards , FAQ's and manuals
- Publishing current and prospective research and development results;
- Participating in weekly group discussions where the quality and functionality of the knowledge resources and the analyzer is tested based on real-life data;

January 2008 – October 2008

Employer: Hakia. New York, NY, USA

Position: Linguistic consultant, lexicon acquirer (contractor)

Duties: Acquisition of the English lexicon mostly with the focus on the medical domain (diseases and pharmaceuticals), lexicon testing, developing lexicon acquisition templates; deploying rapid and semi-automatic lexical acquisition methods;

August 2007 – April 2008

Employer: Center for Education, Research in Information Assurance and Security; Purdue University, West Lafayette, IN, USA

Position: Research Assistant in the project: Ontological Semantics Support for a limited domain (privacy policy). National Science Foundation Grant # 0428554 to Purdue University. Principal investigator: Professor Victor Raskin

Duties:

- Developing Ontological Semantics support for the privacy policy domain;
- Designing ontological and lexical knowledge resources for the domain of privacy policy; Developing abductive modules of information extraction based on the domain of privacy policy;
- Presenting research results at conferences and in publications

Academic positions

Fall 2008 – present

University: Princess Ekaterina R. Dashkova Moscow Humanities Institute. Moscow; Russia

Position: Visiting Professor of English and Linguistics; Chair of Theoretical Linguistics Section;

Duties: Lecturing, teaching, consultancy, faculty recruitment/management

Courses taught (language of instruction is English):

- Introduction to Linguistics (undergraduate and graduate level)
- Language and Culture
- Linguistic Typology
- English-Russian Translation (undergraduate and graduate level)
- English-Russian Literary Translation;
- English (undergraduate and graduate level)
- Effective Presentation Skills

Fall 2007 – present

Research Group Member, Natural Language Processing Laboratory, Purdue University, West Lafayette, IN, USA

Activities:

- Working in the Ontological Semantics Research and Development Group
- Research into the theory and methodology of acquisition and maintenance of ontological, lexical and onomastical knowledge resources
- Consultancy on Ontological Semantics at the product improvement and novel implementation level

Fall 2007 – Spring 2008

University: Purdue University, West Lafayette, IN, USA

Position: Assistant instructor/lecturer (with Prof. Victor Raskin)

Duties: Substitute lecturing and teaching; coursework grading, course projects consultancy

Courses taught:

- ENGL 511/LING 531: Semantics for graduate students (Spring 2008);
- ENGL 506/LING 500: Introduction to Linguistics for graduate students (Spring 2008);
- ENGL 227/LING 201: Introduction to Linguistics/Elements of Linguistics (Fall 2007);
- LING 689R: Seminar in Humor Theories (Fall 2007);

Fall 2004 – Spring 2005

University: Anton Chekhov Taganrog Pedagogical Institute. Taganrog, Russia.

Position: Assistant instructor

Duties: Teaching, lecturing

Courses taught:

- Russian (undergraduate and graduate level)
- English (undergraduate and graduate level)
- Seminar in Semantics (undergraduate and graduate level)

EDUCATION

Ph.D. in Linguistics (May, 2008)

University: Purdue University, Interdisciplinary Program in Linguistics, College of Liberal Arts, West Lafayette, IN, USA. GPA 3.92/4.00

Dissertation title: *The narrative joke: conceptual structure and linguistic manifestation*

Advisor: Distinguished Professor Victor Raskin.

Committee members: Prof. Victor Raskin, Prof. Shaun Hughes, Prof. Salvatore Attardo,
Prof. Myrdene Anderson.
Degree conferred May 3, 2008.

Ph.D. ("kandidak nauk") in Philology (May, 2005)

University: Anton Chekhov Taganrog Pedagogical Institute. Taganrog, Russia

Dissertation title: *Modern joke in textual, genre and discursive aspects (Sovremenny anekdot v tekstovom, zhanrovom i diskursivnom aspektakh)*

Advisor: Professor Galina Infantova

M.A. in English (2003) *Summa cum laude*; B.A. in English (2001)

University: Anton Chekhov Taganrog Pedagogical Institute. Taganrog, Russia

M.A. in Russian (2002) *Summa cum laude*; B.A. in Russian (2000)

University: Anton Chekhov Taganrog Pedagogical Institute. Taganrog, Russia

English language certificate (July, 2005). English Language training program for Graduate students.

University: SUNY at Buffalo, English Language Institute, NY.

Certificate in New Drama Translation Seminar and New Drama Editing Seminar (May, 2005)

Organization: British Council Russia Project Coordinator: Alexanrda Dugdale. Royal Court Theatre, London. Play translated: "Under the Blue Sky" (David Eldridge). Staged in Oleg Tabakov Theatre, Moscow.

PUBLICATIONS

Co-authored books

Ontological Semantics Technology (350 pp. in preparation, tentatively committed to Morgan Kaufmann, Scheduled 2012, with V. Raskin, C. F. Hempelmann and J.M. Taylor)

Peer-reviewed publications

- 2012 Petrenko, M. and C.F. Hempelmann. *Ontological Semantics of Antonyms*. ILINTEC'12, Workshop on Intelligent Linguistic Technologies 2012 (part of ICAI'12, International Conference on Artificial Intelligence). Las Vegas, NV, USA
- 2011 Petrenko, M. *Semi-automatic verb-driven lexicon acquisition enhancer*. ILINTEC'11, Workshop on Intelligent Linguistic Technologies 2011 (part of ICAI'11, International Conference on Artificial Intelligence). Las Vegas, NV, USA. July 18-21.
- 2010 Taylor J., Raskin V., Petrenko M, and C.F. Hempelmann. *Multiple Noun Expression Analysis: An Implementation of Ontological Semantic Technology*. Proceedings of Computational Linguistics – Applications, 2010. International Multiconference on Computer Science and Information Technology. Wisla, Poland. October 18-20; pp. 167-174.
- 2010 Petrenko M. *The Architecture and Functionality of Ontological Semantics*. To appear in: Proceedings of the 29th International Conference on Lexis and Grammar. Belgrade, Serbia. September 15-18; pp 262-271.
- 2010 Petrenko, M. *Priming-based Disambiguation in Ontological Semantics*. ILINTEC'10, Workshop on Intelligent Linguistic Technologies'10 (part of ICAI'10, International Conference on Artificial Intelligence). Las Vegas, NV, USA. July 12-15; pp. 942-947.
- 2010 Petrenko, M. *Lexicon Management in Ontological Semantics*. Dialog-2010 Computational Linguistics Conference. Moscow, Russia. May 26-30, 2010, pp 636-641.
<http://www.dialog-21.ru/dialog2010/materials/html/91.htm>
- 2009 Petrenko, M. *Ontological Semantics and Abduction: Parsing Ellipsis*. Dialog-2009 Computational Linguistics Conference. Moscow, Russia. May 27-31, pp. 598-605
<http://www.dialog-21.ru/dialog2009/materials/pdf/93.pdf>
- 2009 Petrenko, M. *The Semantics of Contextual Synonymy: the Case of Anton Chekhov*. Slavic and East European Journal (unpublished draft)
- 2008 Raskin, V., Hempelmann, C.F., Taylor, J., Petrenko M.S., Triezenberg K.E., and Brian Buck. *The Why's, How's and What-of's of Natural Language Ontology*. Meaning Computation Vol. 1 (forthcoming).
- 2008 Petrenko, M. and Victor Raskin. *Modeling Abduction within Ontological Semantics*. Proceedings of Midwestern Computational Linguistics Colloquium-5. Michigan State University. May 10-11, 2008.

- 2008 Petrenko, M. *A review of the Annual Meeting of the Association of Scholars of Slavic and East European Languages in Chicago 2007*. The Herald of the Southern Federal University, Philological Sciences. 1: 213-219.
- 2007 Petrenko, M. *The narrative joke: conceptual structure and linguistic manifestation*. Working papers of Purdue Linguistics Association 1(1). Purdue University, IN: 128-153. (<http://web.ics.purdue.edu/~pla2006/>)
- 2005 Petrenko, M. *Apocryphal roots of modern joke*. Philosophy and Orthodoxy in the context of modern culture. Proceedings of the international conference. Krasnodar: 289-295.
- 2004 Petrenko, M. and Elena Grishanina. *The Linguistic Poetics of humor in Chekhov's early works*. Selection of the XXII Chekhov readings (proceedings of the linguistic section). Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia: 41-46.
- 2004 Petrenko, M. *The Nature of joke as a playful discourse*. Speech. Speech activity. Text. Proceedings of the conference. Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia.
- 2003 Petrenko, M. *Paradigmatics and syntagmatics of joke*. Collection of papers of the students and faculty. Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia.
- 2003 Petrenko, M. *Joke as a text: problems and perspectives of study*. Text in the system of higher and professional education. Proceedings of the 1st Scientific conference. Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia.
- 2003 Petrenko, M. *Children's joke: genre specifics and functions*. Folklore: traditions and modernity. Collection of papers. Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia: pp. 42-50.
- 2002 Petrenko, M. *The status of joke as a speech genre*. Speech. Text. Collections of papers. Senina, N. (ed.). Taganrog: Anton P. Chekhov Taganrog Pedagogical Institute. Taganrog, Russia. pp. 172-175.

Published translation

- 2008 Petrenko, M. et al. (translators). 2008. Lucky Dog (Sobach'e Schast'e) by Leo Butler. Antologiya Sovremennoi Britanskoi Dramaturgii (The Anthology of Modern British Drama). Oskolkova, T., Dugdale, S., Genina, A. (eds.). Novoe Literaturnoe Obozrenie (New Literary Review), Moscow: 583-650

PRESENTATIONS

- September 2010 *The Architecture and Functionality of Ontological Semantics*. 29th International Conference on Lexis and Grammar. September 15-18. Belgrade, Serbia
- May 2010 *Lexicon Management in Ontological Semantics*. Dialog-2010 Computational Linguistics Conference. Moscow, Russia.

- December 2009 *Static and Dynamic Resource Management in Ontological Semantics*. A 90-minute invited talk delivered at the Information Institute of Russian Academy of Science. Moscow, Russia. December 15, 2009.
- May 2009 *Ontological Semantics and Abduction: Parsing Ellipsis*. Dialogue-2009 Annual Computational Linguistics Conference. Moscow, Russia. May 27-31, 2009.
- November 2008 *Ontological Semantics*. Invited lecture delivered at the Institute of Information Science at the Russian Academy of Science. Moscow, Russia.
- May 2008 *Modeling Abduction within Ontological Semantics*. Midwest Computational Colloquium-5. Michigan State University, East Lansing. May 10-11, 2008.
- December 2007 *Towards the study of poetics of Anton Chekhov: the case of contextual synonyms*. American Association of Teachers of Slavic and Eastern-European Languages (AATSEEL) Annual conference in Chicago Dec 27-30.
- October 2007 Participant in the Semantics discussion group organized by Purdue Linguistics Association (PLA). Purdue University, West Lafayette, IN
- April 2007 *Modern fictional joke: basic structure and pragmatic representation*. Purdue Linguistics Association Symposium.
- November 2002 Guest discussant at the defense of the PhD dissertation by Andrei Goloborod'ko: "*Kognitivnaya obuslovlennost' porozhdeniya komicheskogo smysla v anekdote v sovremennom russkom yazike*" (*The cognitive basis for the generation of comical sense in a joke in modern Russian*). Supervisor: prof. Lubov' Lisochenko. Taganrog Pedagogical Institute.
- September 2002 *Joke as a text: problems and perspectives of study*. Text in the system of higher and professional education. The 1st Scientific conference. Taganrog Pedagogical Institute.

ACADEMIC ACTIVITIES

Professional Service

- August 2011 Program Committee member: Web Intelligence for information Security workshop at the 2011 IEEE/WIC/ACM International Conference on Web Intelligence. Lyon, France. August 22-27
- July 2011 Program Committee member: Workshop on Intelligent Linguistic Technologies'10 (part of ICAI'11, International Conference on Artificial Intelligence). Las Vegas, NV, USA. July 18-21
- July 2010 Program Committee member: Workshop on Intelligent Linguistic Technologies'10 (part of ICAI'10, International Conference on Artificial Intelligence). Las Vegas, NV, USA. July 12-15

March 2010	Chair: Linguistics section. The 16 th Annual Princess Dashkova Conference; Organized by Princess Ekaterina R. Dashkova Moscow Humanities Institute (Russia).
March 2009	Chair: Linguistics section. The 15 th Annual Princess Dashkova Conference; Organized by Princess Ekaterina R. Dashkova Moscow Humanities Institute (Russia).
Winter 2009 – present	Member of Academic Board for Princess Ekaterina R. Dashkova Moscow Humanities Institute. Moscow, Russia.
Winter 2009	Member of Fulbright Applicants Selection Panel; interviewer; Fulbright Program in Russia; Moscow, Russia.
Fall 2007	Purdue Linguistics Association: Social coordinator/Public relations officer. Purdue University, West Lafayette, IN.

Membership

2007-present	American Association of Teachers of Slavic & Eastern-European languages (AATSEEL)
2007-present	Linguistic Society of America
2007-2009	Modern Language Association

Grants and Awards

2006-2007	Fulbright Fellowship. Institute of International Education – Purdue University, Interdisciplinary Program in Linguistics, College of Liberal Arts, West Lafayette, IN
-----------	---

PROFESSIONAL SKILLS

Independent coursework

- Machine Learning online course with Prof. Andrew Ng at Stanford University. Basic track. Score: 72.35 out of 80. Fall 2011. Certificate of accomplishment available on request
- Computer Science 101: Building a Search Engine. Online course with Professors Sebastian Thrun and David Evans. April 2012. Certificate of accomplishment available on request

Programming background

- Java (control statements, methods, arrays, algorithm development)
- Python (definitions, data structures, lists, sets, dictionaries and indices)
- Augmented Backus-Naur Form (ABNF) grammar (basic knowledge)
- SQL (general knowledge)
- HTML (general knowledge)
- Octave (matrix and vector operations, functions, control statements, plotting data)

Software user expertise:

- MS Office package (Word, Excel, Power Point, OneNote, InfoPath)
- Adobe applications (Professional, Photo Shop, Dream Weaver)

- Online conference applications (Go to Meeting, WebEx)
- Workflow management platforms (SharePoint, Rally)
- IDE(Eclipse)
- Ontology/lexicon managers (Protégé, KBAE, proprietary GTW-based platforms)

Languages

Russian (native), English (near-native), Ukrainian and Belarusian (reading, listening comprehension skills), French (beginner, courses in French taken at Purdue), Old Church Slavonic, Old East Slavic (linguistic familiarity), Latin (linguistic familiarity), Tigrinya (linguistic familiarity)

REFERENCES

1. Victor Raskin

Distinguished Professor of English and Linguistics
 Professor of Computer Science (courtesy appointment)
 Founder and Coordinator, Natural Language Processing Laboratory
 Co-Founder and Associate Director, CERIAS

<http://www.cerias.purdue.edu>

Co-Founder and Associate Director, Interdisciplinary Graduate Program in Information Security

<http://web.ics.purdue.edu/~vraskin/Raskin.html>

+1765-494-3780 fax

+1765-409-0675 cell (best)

Email: vraskin@purdue.edu

3. Salvatore Attardo

Dean, College of Liberal Arts
 Department of Literature and Languages
 Texas A&M University-Commerce
 P.O. Box 3011, Commerce, TX 75429-3011
 Phone: (903) 886-5121

Email: Salvatore_Attardo@tamu-commerce.edu

3. Dr. Christian F. Hempelmann

Visiting Scholar:
 Interdisciplinary Program in Linguistics,
 Purdue University

Phone: (347) 721-6977

Email: chempelm@purdue.edu

4. Myrdene Anderson

Associate Professor of Anthropology and Linguistics:
 Department of Anthropology
 and Interdisciplinary Program in Linguistics

Office: STON 356

700 W. State Street

Purdue University

West Lafayette, IN, 47907

Phone: (765) 496-7400

Email: myanders@purdue.edu