

# Lili Kotlerman - Curriculum Vitae

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Name: **Lili Kotlerman**

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## *Qualification Overview*

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- PhD student in Natural Language Processing
- Extensive and diverse experience in NLP, working on a variety of topics and collaborating with research groups in industry.
- Good technical skills, including Java, C++, Python, SQL, working in UNIX/LINUX and Windows environments.
- Creative, open-minded, team player, good learner.

## *Education*

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**2010 – present (expected in 2016)**

**Ph.D. student, Computer Science**

Bar Ilan University, Israel

Research field: Natural Language Processing (NLP) / Computational Linguistics

Topic: Entailment-based text exploration

Advisor: Prof. Ido Dagan

**2004 - 2009**

**M.Sc., Computer Science**

Bar Ilan University, Israel

Research field: Natural Language Processing (NLP) / Computational Linguistics

Topic: Lexical entailment acquisition by means of distributional similarity

Advisor: Prof. Ido Dagan

*Grade Point Average 91.5*

**1999 - 2003**

**B.Sc. (Summa Cum Laude), Computer Science**

National Technical University "Kharkov Polytechnic Institute", Ukraine

## *Awards and Scholarships*

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**2011 Scholarship to Advance Women in Science**

Ministry of Science, Israel.

## Professional Experience

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### Natural Language Processing research

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#### 2004 - present Bar Ilan University.

- M.Sc. & Ph.D. research focused around applied semantic inference.  
*Topics include: knowledge acquisition, lexical semantics, distributional similarity, machine learning (supervised, unsupervised and semi-supervised), context modeling, knowledge engineering, applying semantic inference to text exploration tasks, such as text categorization, domain taxonomy generation, document clustering.*
- Coordinated joint projects with industry, contributed to research of other students in the lab and to the lab's code infrastructure, participated in preparing and writing several accepted grant proposals.

#### 2012 Educational Testing Service, Princeton, USA.

- Summer internship. Worked on developing a system for generation, exploration and analysis of pivoted paraphrase collections.

### Project Management and Coordination

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**2012 – 2015** Bar-Ilan University. Coordinator and main developer of a work package within the EXCITEMENT project under the EU's Seventh Framework Program (FP7). The project focused on different aspects of automatically analyzing customer interactions and involved research and industrial institutions from Israel, Germany and Italy.

**2011** Joint project of Bar-Ilan University with NICE Systems on automatic analysis of user interactions with a call center, funded by the Magnet program of the Israeli Ministry of Industry, Trade and Labor.

**2010 – 2011** Joint project of Bar-Ilan University with Orca Interactive within the NEGEV consortium funded by the Magnet program of the Israeli Ministry of Industry, Trade and Labor. The project focused on using semantics to improve an automatic video recommendation system.

### Other

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#### Teaching Assistant

- **Bar Ilan University, Computer Science Department:** Statistical Methods in Computer Science Research, Information Retrieval, Intro to NLP (2006 – 2013).
- **The College of Management, Computer Science Department:** Introduction to Cryptography and Network Security (2005).

#### Editor/Translator

- **The Henrietta Szold Institute, Jerusalem.** Scientific editor of school-leaving certificate exams ("*bechinot bagrut*") in Computer Science. Hebrew-to-Russian translator of school-leaving certificate exams in Computer Science, Mathematics and Physics (2007 – present).
- **Trans Titles Ltd, Tel-Aviv.** Hebrew/English-to-Russian translator of subtitles for TV programs and movies (2004 – 2006).

## Publications

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### Conference papers:

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- Tae-Gil Noh, Sebastian Padó, Vered Shwartz, Ido Dagan, Vivi Nastase, Kathrin Eichler, Lili Kotlerman and Meni Adler. Multi-Level Alignments as an Extensible Representation Basis for Textual Entailment Algorithms. 2015. Lexical and Computational Semantics (\*SEM), Denver, USA.
- Lili Kotlerman, Nitin Madnani and Aoife Cahill. ParaQuery: Making Sense of Paraphrase Collections. 2013. ACL (System demonstrations), Sofia, Bulgaria.
- Lili Kotlerman, Ido Dagan, Maya Gorodetsky and Ezra Daya. Sentence Clustering via Projection over Term Clusters. 2012. \*SEM Joint Conference on Lexical and Computational Semantics (Short papers), Montreal, Canada.
- Asher Stern, Amnon Lotan, Shachar Mirkin, Eyal Shnarch, Lili Kotlerman, Jonathan Berant and Ido Dagan. Knowledge and Tree-Edits in Learnable Entailment Proofs. 2011. Text Analysis Conference (RTE-7), Maryland, USA.
- Lili Kotlerman, Zemer Avital, Ido Dagan, Amnon Lotan and Ofer Weintraub. A Support Tool for Deriving Domain Taxonomies from Wikipedia. 2011. RANLP (System demonstrations), Hissar, Bulgaria.
- Shachar Mirkin, Ido Dagan, Lili Kotlerman and Idan Szpektor. Classification-based Contextual Preferences. 2011. TextInfer, Edinburgh, Scotland.
- Asher Stern, Eyal Shnarch, Amnon Lotan, Shachar Mirkin, Lili Kotlerman, Naomi Zeichner, Jonathan Berant and Ido Dagan. Rule Chaining and Approximate Match in Textual Inference. 2010. Text Analysis Conference (RTE-6), Maryland, USA.
- Lili Kotlerman, Ido Dagan, Idan Szpektor and Maayan Zhitomirsky-Geffet. Directional distributional similarity for lexical expansion. 2009. ACL-IJCNLP (Short papers), Singapore.

### Journal papers:

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- Lili Kotlerman, Ido Dagan, Bernardo Magnini and Luisa Bentivogli. Textual Entailment Graphs. 2015. Natural Language Engineering, DOI:10.1017/ S1351324915000108.
- Chaya Liebeskind, Lili Kotlerman, and Ido Dagan. Text Categorization from Category Name in an Industry-motivated Scenario. 2015. Language Resources and Evaluation 49.2: 227-261.
- Lili Kotlerman, Ido Dagan, Idan Szpektor and Maayan Zhitomirsky-Geffet. Directional Distributional Similarity for Lexical Inference. 2010. Natural Language Engineering 16 (4): 359-389. Cambridge University Press.

### M.Sc. Thesis:

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- Lili Kotlerman. M.Sc. Thesis. Directional Distributional Similarity for Lexical Expansion. 2009. Computer Science Department, Bar Ilan University, Israel.

## Other Academic Activities

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### Talks and Presentations (peer-reviewed):

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- Clustering Moderate-size Collections of Short Texts. The Israeli Seminar on Computational Linguistics (ISCOL), Haifa University. 2014.
- Textual Entailment Graphs. The Israeli Seminar on Computational Linguistics (ISCOL), Haifa University. 2014.
- Sentence Clustering via Projection over Term Clusters. The Israeli Seminar on Computational Linguistics (ISCOL), Ben-Gurion University. 2013.
- ParaQuery: Making Sense of Paraphrase Collections. Bar-Ilan Symposium on the Foundations of Artificial Intelligence (BISFAI), Bar Ilan University. 2013.
- Sentence Clustering via Projection over Term Clusters. Bar-Ilan Symposium on the Foundations of Artificial Intelligence (BISFAI), Bar Ilan University. 2013.
- Deriving Target-Domain Taxonomies from Wikipedia Category Hierarchy. The Israeli Seminar on Computational Linguistics (ISCOL), Bar Ilan University. 2011.
- Directional Semantic Similarity. IBM Machine Learning Seminar, Haifa University. 2009.
- Corpus-Based Distributional Learning of Lexical Entailment. The Israeli Seminar on Computational Linguistics (ISCOL), Bar Ilan University. 2008.

### Reviewer

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- ACL, EMNLP, IJCNLP, COLING, TKDE journal.

## Social/Volunteer Activities

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### **2009 - 2014 Project of Computerized Research of Shmuel Yosef Agnon's Work, Department of Literature of the Jewish People, Bar-Ilan University.**

- Electronic Academic Edition consultant.

### **2006 Internet forum of Dr. Evgeny Komarovsky, a well-known Ukrainian pediatrician.**

- Forum moderator. Structuring the information to allow easier navigation and search, helping to maintain friendly and pleasant atmosphere.

### **2005 - 2006 The Jewish Agency for Israel (JAFI).**

- "March of the living" guide. Guiding a group of 30-40 high school students through Holocaust and Jewish heritage sights in Poland.

### **2001 - 2003 The Jewish Agency for Israel in Kharkov, Ukraine.**

- Coordinator of student programs, youth leader ("*madricha*").

## Languages

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- Russian - mother tongue
- English, Hebrew, Ukrainian - fluent