# Fatemeh Torabi Asr

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`ftasr.github.io`

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**EDUCATION**

**PhD, Computer Science (2011 – 2015)**
Saarland University, Saarbrücken, Germany.
* With great honor (*Magna cum laude*)

**M.Sc. Computer Science & Engineering, major in Software (2007 – 2010)**
Shiraz University, Shiraz, Iran.
* First rank among students of the class 2007

**B.Sc. Computer Science & Engineering, major in Software (2003 – 2007)**
Department of Computer Science and Engineering, Shiraz University, Shiraz, Iran.
* First rank among students of the class 2003

**EMPLOYMENT**

**Postdoctoral Research Associate (Dec. 2015 – Present)**
Department of Psychological & Brain Sciences, Indiana University, Bloomington, USA

**Research Staff (Oct 2014 – Nov 2015)**
Collaborative Research Center SFB 1102, Saarland University, Saarbrücken, Germany

**Research Staff (Apr 2011 – Sep 2014)**
Cluster of Excellence MMCI, Saarland University, Saarbrücken, Germany

**AWARDS and HONORS**

Travel Award to Attend the Early Career Mentoring Workshop at SIGCSE (2017)
From: Computing Research Association

Two Provost's Travel Awards for Women in Science (2016)
From: Indiana University Office of the Vice Provost for Research

Young Scientist Travel Award (2016)
From: Indiana University Cognitive Science Program the National Science Foundation

TextLink Short Term Scientific Mission Grant (2014)
From: European Cooperation in Science and Technology (COST Action IS1312)

Don and Betty Walker International Student Travel Award (2014)
From: Association for Computational Linguistics

Direct Entrance Award – admission without exam to the M.Sc. program (2007)
From: Shiraz University

Honorable mentions in the regional ACM programming competitions (Tehran site) as a team contestant/coach for 3 years (2005 – 2007)
From: IBM and Sharif University of Technology

**SUMMARY of SKILLS**

- Programming (C, C++, Java, Python)
- Machine learning and neural networks (Weka, Mallet, TensorFlow, etc.)
- Data analysis and statistics (Excel, R, Matlab, Numpy)
- Experimental Design (corpus-based, eye-tracking, crowd-sourcing, survey)
- Project management, databases and version control (UML, SQL, SVN, Git)
- Research, teaching, publication, presentation, peer-review

**PUBLICATIONS**

## Journal articles & book chapters

**F. T. Asr** and V. Demberg (in prep.) *"Discourse comprehension as a probability sensitive process"*.

V. Demberg, **F. T. Asr** and M. Scholman (in prep.) *"Mapping PDTB and RST discourse annotations"*.

**F. T. Asr** and M. N. Jones (submitted) *"An artificial language evaluation of distributional semantic models"*.

T. Sanders, V. Demberg, J. Hoek, M. Scholman, **F. T. Asr**, S. Zufferey and J. Evers-Vermeul (under review) *"Unifying dimensions in discourse relations: How various annotation frameworks are related"*.

**F. T. Asr**, A. Fazly and Z. Azimifar (2013) *"From cues to categories: a computational study of children's early word categorization"*. Theory and applications of natural language processing: Springer-Verlag Berlin Heidelberg.

M. Samadi, **F. T. Asr**, J. Schaeffer and Z. Azimifar (2009) *"Extending the applicability of pattern and endgame databases"*. IEEE Transaction on Computational Intelligence and AI in Games.

## Conference proceeding papers

**F. T. Asr**, J. A. Willits and M. N. Jones (2016). *"Comparing predictive and co-occurrence based models of lexical semantics trained on child-directed speech"*. Proceedings of the $38^{nd}$ Annual Conference of the Cognitive Science Society, Philadelphia, Pennsylvania, USA.

**F. T. Asr** and V. Demberg (2016). *"But and Although under the microscope"*. Proceedings of the $38^{nd}$ Annual Conference of the Cognitive Science Society, Philadelphia, Pennsylvania, USA.

**F. T. Asr** and V. Demberg (2015). *"Uniform Information Density at the level of discourse relations: negation markers and discourse connective omission"*. The 11th International Conference on Computational Semantics (IWCS), London, UK.

**F. T. Asr**, J. Sonntag, Y. Grishina and Manfred Stede (2014). *"Conceptual and practical steps in event coreference analysis of large-scale data"*. The 2nd Workshop on EVENTS: Definition, Detection, Coreference, and Representation at ACL, Baltimore, USA.

**F. T. Asr** and V. Demberg (2013). *"On the information conveyed by discourse markers"* . Workshop on Cognitive Modeling and Computational Linguistics at ACL, Sofia, Bulgaria.

**F. T. Asr** and V. Demberg (2012). *"Implicitness of discourse relations"*. $24^{th}$ International Conference on Computational Linguistics (Coling), Bombay, India.

**F. T. Asr** and V. Demberg (2012). *"Measuring the strength of linguistic cues for discourse relations"*. Workshop on Advances in Discourse Analysis and its Computational Aspects (ADACA), Bombay, India.

**F. T. Asr**, A. Fazly and Z. Azimifar (2010). *"The effect of word-internal properties on syntactic categorization: a computational modeling approach"*. Proceedings of the $32^{nd}$ Annual Conference of the Cognitive Science Society, Portland, USA.

M. Samadi, J. Schaeffer, **F. T. Asr**, M. Samar and Z. Azimifar (2008). *"Using abstraction in two-player games"*. $18^{th}$ Conference on Artificial Intelligence, Patras, Greece.

M. Samadi, **F. T. Asr**, Z. Azimifar and M. Z. Jahromi (2008). *"Separating the factors of the optimal solution in chess "*. $13^{th}$ Annual Conference of Computer Society of Iran, Kish Island, Iran.

## Conference abstracts

**F. T. Asr** and M. N. Jones (2016). *"Experimenting with the keyword matching approaches to automated short answer scoring"*. Midwest Speech and Language Days & Midwest Computational Linguistics Colloquium 2016, Bloomington, Indiana, USA.

V. Demberg, **F. T. Asr**, H. Rohde and M. Scholman (2015). *"Discourse expectations raised by contrastive connectives"*. Conference on Discourse Expectations: Theoretical, Experimental, and Computational Perspectives (DETEC), Edmonton, Canada.

**F. T. Asr** (2015). *"Colloquial Persian in discourse and dialogue"*. At the panel on Formal vs. Colloquial Persian from a Language Technology Perspective, the second biennial Symposia Iranica 2015, Cambridge, UK.

**F. T. Asr** and V. Demberg (2015). *"A discourse connector's distribution determines its interpretation"*. The CUNY Conference on Human Sentence Processing 2015, Los Angeles, California, USA.

**F. T. Asr** and V. Demberg (2015). *"A distributional account of discourse connectives and its effect on fine-grained inferences"*. Text-link Conference, Louvain, Belgium.

**F. T. Asr** and V. Demberg (2014). *"Information density and the use of discourse cues"*. Conference on the Architecture and Mechanism for Language Processing (AMLaP), Edinburgh, Scotland.

**F. T. Asr** and V. Demberg (2013). *"Can neighboring relations help to anticipate upcoming discourse relations?"*. Conference on the Architecture and Mechanism for Language Processing (AMLaP), Marseille, France.

**F. T. Asr** and V. Demberg (2012). *"Tendency for causality in implicit discourse relations"*. Corpus-Assisted Discourse Analysis (CADSConf), Bologna, Italy.

**F. T. Asr** and V. Demberg (2012). *"Discourse expectations and implicitness of (causal) discourse relations"*. Conference on the Architecture and Mechanism for Language Processing (AMLaP), Trento, Italy.

**F. T. Asr**, A. Fazly and Z. Azimifar (2011). *"Simulation of a psychological experiment in a computational framework"*. $4^{th}$ International Conference of Cognitive Science, Tehran, Iran.

**F. T. Asr**, Z. Azimifar and A. Fazly (2009). *"A statistical modeling approach for child syntax acquisition"*. 3rd International Conference of Cognitive Science, Tehran, Iran.

**INVITED TALKS**    Note: Presentations at conferences and home universities are not included.

Investigating distributional semantic models trained on child directed speech as human lexical memory. Language Processing Lab, University of Calgary, Alberta, Canada (September 2016)

Insights into human discourse as information communication. Department of Linguistics, Ohio State University, Colombus, USA (April 2016)

Discourse connectives from an information theoretical perspective. Department of Languages, Literature and Communication, Universiteit Utrecht, Utrecht, Netherlands (April 2015)

Uniform information density at the level of discourse relations. MODERN project meeting, Utrecht Institute of Linguistics OTS, Universiteit Utrecht, Utrecht, Netherlands (April 2015)

Approaching event analysis in large-scale data. Tech talk at Amazon, Aachen, Germany (June 2015)

A computational psycholinguistic study of the discourse markers. Computational Linguistics Colloquium, Department of Linguistics, Universitaet Potsdam (Jan 2014)

**VISITS**    **As an intern (Nov 2014 – Dec 2014)**
Institute for Language, Cognition and Computation, University of Edinburgh, Scotland
Successful conduction of a set of eye-tracking reading experiments on English speakers to study the effect of information and expectation on text comprehension.

**As a visiting researcher (Dec 2013 – Mar 2014)**
Applied CompLing Discourse Research Lab, University of Potsdam, Germany
Successful development of an event clustering component in a UIMA annotation pipeline framework as part of the *e-Identity* project involved with analyzing large-scale news corpora — method presented at the workshop on EVENTS, ACL 2014.

**TEACHING**    **Instructor (2011 – 2013)**
Persian Language
Sprachezentrum, Saarland University, Saarbrücken, Germany

**Instructor (2009 – 2010)**
Data Structures, File Structures
Payamnour University, Shiraz, Iran

**Instructor (2009 – 2010)**
Advanced Programming

Pishtazan Higher Education Institute, Shiraz, Iran

**Teaching Assistant (2003 − 2010)**
Discrete Mathematics, Design and Analysis of Algorithms, Databases
Department of Computer Science and Engineering, Shiraz University, Shiraz, Iran.

**PROFESSIONAL**
**ACTIVITIES**

## Collaborative

Project: Automated short answer scoring for personalized retrieval-based learning
Collaborators: Indiana University, Purdue University

Project: Distributional semantic models from a cognitive perspective
Collaborators: Indiana University, University of California

Project: Automated discourse annotation and analysis
Collaborators: Saarland University, University of Utrecht

## Editorial

Conferences peer-review: *DISPOL (2015), EMNLP (2015), ESSLLI (2014, 2016),
EACL (2017), CMCL (2017)*
Journals occasional review: *INFOCOMP, PLOS ONE, Discourse Processes, Behavior
Research Methods*

## Administrative

Organization of the Distributional Semantics Meetings, Indiana University (now)
Paneling on Persian Language Technology, Symposia Iranica, Cambridge, UK (2015)
Student volunteering at the annual meeting of the ACL, Baltimore, USA (2014)
Organization of the FEAST meetings at Saarland University, Germany (2012–2015)
Organization of workshops for university and high-school students (2006–2010)
Administration of Sina-Khayam interdisciplinary study group (2008–2010)
Administration of the ACM programming contests at Shiraz University (2006–2008)

**LANGUAGES**
- Persian (native)
- English (fluent)
- German (A2)
- Turkish (elementary)
- Arabic (basic)