Eva Maria Vecchi

Contact Information

Computer Laboratory
University of Cambridge
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Research Interests

Human Language Technology
Web-Scale Semantics
Distributional Semantics
Corpus–based Natural Language Processing
Compositionality & Formal Semantics
Meaning Representation

Education

Ph.D. Cognitive and Brain Sciences
Dec. 6 2013 CIMeC, University of Trento Rovereto, Italy
Advisors: Prof. Roberto Zamparelli & Prof. Marco Baroni
Thesis Title: "Distributional semantic phrases vs. semantic distributional nonsense: Adjective modification in compositional distributional semantics"

M.S. Computational Linguistics
May 2007 Georgetown University Washington D.C.
Advisor: Prof. Markus Dickinson
Thesis Title: "Personal Names: Recognition of variants incorporating the understanding of possible variations"

B.A. Linguistics
May 2005 University of Colorado Boulder, CO
Minors: Mathematics & Italian

Academic Activities

EACL 2017 Program Committee
NAACL HLT 2016 Program Committee
SSST 2014 Workshop Co-Organizer
COLING 2014 Program Committee
ACL 2014 SRW Program Committee, Student Research Workshop
***SEM 2013/2014/2015/2016 Program Committee**
DSALT 2016 Program Committee
RANLP 2013 Program Committee, Student Research Workshop
ACL 2013 Workshop Co-Chair, Student Research Workshop
IWCS 2013 Program Committee, Towards a Formal Distributional Semantics
DS-Day Organizer and Co-Chair (2012, 2013), CIMeC Doctoral Student Day

Experience

Jan. 2014 – present *Research Associate* Cambridge, UK
Computer Laboratory, University of Cambridge

- Research associate in the Natural Language and Information Processing (NLIP) research group under the supervision of Dr. Stephen Clark
- As part of the DisCoTex Project, an ERC Starting Grant

Apr. 2010 – Oct. 2010 *Research Fellow* Pisa, Italy
CNR, Institute of Computational Linguistics

- Development of methodologies and techniques for monitoring the linguistic competence in Italian of foreign students in primary and secondary schools through advanced technologies in the field of computational linguistics

- Research grant through the Istituto di Ricerche sulle Attività Terziarie (IRAT) for the "Migrazione" Project (code IC.P10)
- Under the supervision of Dr. Simonetta Montemagni (as a result of collaboration between the IRAT and the Institute of Computational Linguistics).

Oct. 2009 – Mar. 2010 *Research Fellow* Pisa, Italy
Univeristy of Pisa, Department of Computer Science

- Design and development of a toolkit for extracting and structuring linguistic knowledge from websites of Italian culture through the use of linguistic and computational technologies
- Development of an Italian FrameNet resource through full–text annotation of open–domain corpora in Italian
- As part of the FIRB project "Integrated services platform for the semantic and multilingual access to Italian cultural content on the web" (Year 2007 Protocol: RBNE07C4R9)

May 2008 – Sept. 2009 *Research Fellow* Pisa, Italy
University of Pisa, Department of Computer Science

- Design and development of a system for the automatic morpho-syntactic, syntactic dependency and semantic annotation of Italian texts
- Research grant entitled "Annotated corpus of the Italian language" under the project "Analysis of texts for the Semantic Web and Question Answering (SemaWiki, conv. 119/06)"

2005–2007 *Information Systems Engineer* McLean, VA
The MITRE Corporation

- Design and evaluation of systems of transliteration and name variant matching
- Development of a taxonomy for multilingual, multicultural and transliteral variants of personal names for a semi-supervised approach to name variant recognition
- Annotation of personal names in parallel English–Chinese news texts for the development of a cross-lingual Named Entity Recognition system
- Under the direction of Dr. Keith Miller and Dr. Philip S. Barry
- In collaboration with The Identity Matching Lab under the TSA and TSC

2005–2006 *Research Assistant* Washington, D.C.
Federation of American Scientists

- Development of a Question-Answering System for a biomedical computer game, "Immune Attack"
- Under the project funded by the NSF (Grant No. 0427827)

Scholarships and Recognitions

Nov. 2010 – Dec. 2013 University of Trento Rovereto, Italy
Granted scholarship for Doctoral studies at the Center for Mind/Brain Sciences

Mar. 2010 University of Pisa Pisa, Italy
Granted a diploma of Laurea Specialistica in Informatica Umanistica (class 24L/D) of the order of the Italian University by Prof. Vincenzo Ambriola (n. 0003537)

Mar. 2010 University of Pisa Pisa, Italy
Granted a diploma of Laurea Triennale in Informatica Umanistica (class 5) of the order of the Italian University by Prof. Vincenzo Ambriola (n. 0003532)

Awards

Honorable Mention Best Paper Award EMNLP 2015 September 2015
Best oral presentation CIMeC Doctoral School Day September 2012
1st place in the Part-of-Speech Tagging (Open Task), *EVALITA 2009* Dec. 2009
3rd place in the Part-of-Speech Tagging (Closed Task), *EVALITA 2009* Dec. 2009

Participation in Grant–funded Research

Distributional Compositional Semantics for Text Processing (DisCoTex), European Research Council project (nr. 306920)

Compositional Operations in Semantic Space (COMPOSES), European Research Council project (nr. 283554)

"Migrazione" Project, Department of Cultural Identity, Italy (code IC.P10)

Integrated services platform for the semantic and multilingual access to Italian cultural content on the web, Fondo per gli Investimenti della Ricerca di Base (FIRB) Project (Year 2007 Protocol: RBNE07C4R9)

Analysis of texts for the Semantic Web and Question Answering (SemaWiki), Fondazione Cassa di Risparmio di Pisa (conv. 119/06)

Building Biologically Based Immune System Simulations for Education and Training, National Science Foundation (Grant No. 0427827)

Publications

Journal Papers:

A. Herbelot and **E.M. Vecchi**. 2016. *Many speakers, many worlds: Interannotator variations in the quantification of feature norms*. Linguistic Issues in Language Technology 13(2):37–57.

E.M. Vecchi, M. Marelli, R. Zamparelli and M. Baroni. 2016. *Spicy adjectives and nominal donkeys: Capturing semantic deviance using compositionality in distributional spaces*. Cognitive Science 1–35. DOI: 10.1111/cogs.12330.

Proceedings:

L. Rimell and **E.M. Vecchi** (2016). SLEDDED: A Proposed Dataset of Event Descriptions for Evaluating Phrase Representations. In *Proceedings of the 2016 ACL Workshop on Evaluating Vector Space Representations for NLP (RepEval 2016)*. Berlin, Germany.

A. Herbelot and **E.M. Vecchi** (2015). Building a shared world: Mapping distributional to model-theoretic semantic spaces. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing*. Lisbon, Portugal. ****Honorable Mention for Best Paper Award****

L. Făgărăşan, **E.M. Vecchi**, and S. Clark (2014). From distributional semantics to feature norms: Grounding semantic models in human perceptual data. *NIPS Learning Semantics Workshop 2014*. Montreal, Canada.

E.M. Vecchi, R. Zamparelli, and M. Baroni (2013). Studying the recursive behaviour of adjectival modification with compositional distributional semantics. In *Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing*, Seattle, WA.

A. Lazaridou, **E.M. Vecchi** and M. Baroni (2013). Fish transporters and miracle homes: How compositional distributional semantics can help NP parsing. In *Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing*, Seattle, WA.

E.M. Vecchi, R. Zamparelli, and M. Baroni (2013). Compositionnaliteé en sémantique distributionnelle et ordonnancement des adjectifs. In *Actes de MIXEUR 2013: Méthodes mixtes pour l'analyse syntaxique et sémantique du français*, pages 99-102, Les Sables dOlonne, France.

G. Boleda, **E.M. Vecchi**, M. Cornudella and L. McNally (2012). First–order vs. higher–order modification in distributional semantics. In *Proceedings of the Joint Conference on EMNLP*. Jeju, Korea.

E.M. Vecchi, M. Baroni and R. Zamparelli (2011). (Linear) maps of the impossible: Capturing semantic anomalies in distributional space. In *Proceedings of the ACL Distributional Semantics and Compositionality Workshop*. Portland, Oregon.

A. Lenci, S. Montemagni, **E.M. Vecchi**, G. Venturi (2011). Enriching the ISST-TANL Corpus with Semantic Frames. *EVALITA 2011*. Rome, Italy.

G. Attardi, S. Dei Rossi, F. Dell'Orletta, **E.M. Vecchi** (2009). The Tanl Named Entity Recognizer at Evalita 2009. In *Proceedings of the 2nd Special Issue on EVALITA 2009*. Reggio Emilia, Italy.

G. Attardi, A. Fuschetto, F. Tamberi, M. Simi, **E.M. Vecchi** (2009). Experiments in tagger combination: arbitrating, guessing, correcting, suggesting. In *Proceedings of the 2nd Special Issue on EVALITA 2009*. Reggio Emilia, Italy.

G. Venturi, A. Lenci, S. Montemagni, **E.M. Vecchi**, M.T. Sagri, D. Tiscornia, T. Agnoloni (2009). Towards a FrameNet Resource for the Legal Domain. In the *3rd Workshop on Legal Ontologies and Artificial Intelligence Techniques joint with 2nd Workshop on Semantic Processing of Legal Text. (LOAIT 2009)*. Barcelona, Spain.

K. Miller, M. Arehart, C. Ball, J. Polk, A. Rubenstein, K. Samuel, E. Schroeder, **E.M. Vecchi**, C. Wolf (2008). An Infrastructure, Tools and Methodology for Evaluation of Multicultural Name Matching Systems. In *Proceedings of the Sixth International LREC*. Marrakech, Morocco.

Languages

English	Fluent (Mother language)
Spanish	Fluent (Mother language)
Italian	Fluent
French	Basic Knowledge

Computer Skills

Python	Advanced
Perl	Advanced
R	Advanced
SQLPlus	Advanced
HTML	Advanced
C++	Intermediate
Java	Intermediate

Community Service

ESL Tutor, Florence, Italy, 2007–2009

Undergraduate Math tutor, Georgetown University, Washington, D.C., 2006

Math & ESL tutor, Family Learning Center, Boulder, CO, 2005

Extra–Curricular Activities

Teatro Lumière, Florence, Italy 2010

Choreographer for the musical production *L'Atteso*

Violin Concerts, Florence, Italy 2009

Violinist of a quartet in various concerts held at San Marco, Florence Italy

The Russian Ballet Company, Denver, CO 2002–2005

Under Artistic Director Elizabeth Shipiatsky. Various performances including *The Nutcracker*, *Cipollino*, *Paquita*, *Don Quijote*, *Swan Lake* and *Giselle*.

The Washington Ballet, Washington, D.C. 1998–2001

Selected as a pre–professional pupil and performer by Mary Day, studied under the direction of Septime Webre