

Eva Maria Vecchi

CONTACT INFORMATION	Institut für Maschinelle Sprachverarbeitung University of Stuttgart Pfaffenwaldring 5b, 70569 Stuttgart, DE	eva.vecchi@ims.uni-stuttgart.de Phone: +49 711 685-81326 Website: www.evavecchi.com
RESEARCH INTERESTS	Argument Mining, Bias Detection & Analysis, Computational Semantics, Compositionality & Formal Semantics, Machine Learning, Meaning Representation, Cognitive Computing	
EDUCATION	Ph.D. Cognitive and Brain Sciences Dec. 6, 2013 CIMEC, University of Trento Rovereto, Italy Advisors: Prof. Dr. Roberto Zamparelli & Prof. Dr. Marco Baroni Thesis Title: “Distributional semantic phrases vs. semantic distributional nonsense: Adjective modification in compositional distributional semantics” M.Sc. Computational Linguistics May 18, 2007 Georgetown University Washington D.C. Advisor: Prof. Dr. Markus Dickinson Thesis Title: “Personal Names: Recognition of variants incorporating the understanding of possible variations” B.A. Linguistics May 6, 2005 University of Colorado Boulder, CO Minors: Mathematics & Italian	
EXPERIENCE	Nov. 2020 – present <i>Post-Doctoral Research Associate</i> Stuttgart, Germany University of Stuttgart, Institute for Natural Language Processing (IMS) <ul style="list-style-type: none">• As part of the e-DELIB Project (BMBF-funded Project)• Aim to automatically assist moderation in e-deliberation platforms• Interdisciplinary work combining techniques in Argument Mining, NLP, and Social Sciences Nov. 2017 – present <i>Visiting Researcher</i> Cambridge, UK University of Cambridge, Department of Computer Science and Technology Dec. 2017 – Dec. 2018 <i>Post-Doctoral Research Associate</i> Stuttgart, Germany University of Stuttgart, Institute for Natural Language Processing (IMS) <ul style="list-style-type: none">• As part of the Center for Reflected Text Analytics (CRETA) Project• Under the supervision of Prof. Dr. Sebastian Padó Jan. 2014 – present <i>Post-Doctoral Research Associate</i> Cambridge, UK University of Cambridge, Computer Laboratory <ul style="list-style-type: none">• 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 <i>Research Fellow</i> Pisa, Italy CNR, Institute of Computational Linguistics <ul style="list-style-type: none">• 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
University 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 “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

- Question-Answering system for biomedical computer game, “Immune Attack”
- Under the project funded by the NSF (Grant No. 0427827)

PUBLICATIONS

JOURNAL PAPERS:

- E.M. Vecchi**, M. Marelli, R. Zamparelli and M. Baroni. 2017. *Spicy adjectives and nominal donkeys: Capturing semantic deviance using compositionality in distributional spaces*. *Cognitive Science* 1–35. DOI: 10.1111/cogs.12330.
- 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.

PROCEEDINGS:

- I. Jundi, N. Falk, **E.M. Vecchi**, and G. Lapesa (2023). Node placement in argument maps: Modeling unidirectional relations in high & low-resource scenarios. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics*. Toronto, Canada.

- G. Lapesa, **E.M. Vecchi**, S. Villata, H. Wachsmuth (2023). Mining, Assessing, and Improving Arguments in NLP and the Social Sciences. In *Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics: Tutorial Abstracts*. Dubrovnik, Croatia.
- C. Shen & **E.M. Vecchi** (2023). Exploring Chain-of-Thought Instruction Tuning for Generative Claim Frame Extraction and Claim Relation Tagging. In the *NIST Text Analysis Conference Claim Relation Understanding and Extraction (CRUX) Workshop*. Rockville, MD, USA. Nov. 13, 2023.
- E.M. Vecchi**, N. Falk, I. Jundi, and G. Lapesa (2021). Towards argument mining for social good: A survey. In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics*. Bangkok, Thailand.
- N. Falk, I. Jundi, **E.M. Vecchi**, and G. Lapesa (2021). Predicting Moderation of Deliberative Arguments: Is Argument Quality the Key? In *Proceedings of the 8th Workshop on Argument Mining*. Punta Cana, Dominican Republic.
- L. Rimell and **E.M. Vecchi** (2016). SLEDDDED: 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. Făgărășan, **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). Compositionnalité 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 d’Olonne, 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.

PARENTAL LEAVE

Feb. 2021 – Mar. 2022 Stuttgart, DE
Feb. 2018 – Mar. 2019 München, DE
Jun. 2015 – Apr. 2016 Cambridge, UK

TEACHING

Argument Mining. IMS, University of Stuttgart, Summer Semester (2023)
EACL 2023 Tutorial: Mining, Assessing, and Improving Arguments in NLP and the Social Sciences
ESSLLI 2022: Argument Mining Between NLP and Social Science. Language and Computation (LaCo) Track, Introductory Level
Lexicon, Syntax, Semantics II: Modeling Meaning. Ludwig-Maximilians-Universität CIS (2018, 2019)
Embeddings in Natural Language Processing. Computational Linguistics Fall School 2019 (IMS, University of Stuttgart)

AWARDS

Honorable Mention Best Paper Award EMNLP 2015 Sept. 2015
Best oral presentation CIMEC Doctoral School Day Sept. 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

Powering up E-DELIBeration: towards AI-supported moderation (e-DELIB), Independent research group funded by the German Federal Ministry for Education and Research (BMBF) (nr. 01UG1601)
Center for Reflected Text Analytics (CRETA), German Federal Ministry for Education and Research (BMBF) within the research programme eHumanities (nr. 01UG1601)
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)

SCHOLARSHIPS AND RECOGNITION	Oct. 2014 – Oct. 2017	University of Cambridge	Cambridge, UK
		Granted Post-Doctoral By-Fellowship at Churchill College	
	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)		
NLP COMMITTEE ACTIVITIES	ACL 2018/2019/2021/2022/2023 Program Committee		
	LREC 2023 Area Chair		
	EACL 2017/2021/2023 Program Committee & Area Chair		
	EMNLP 2017/2023 Program Committee		
	*SEM 2013/2014/2015/2016/2017/2019/2020/2022 Program Committee		
	IWCS 2013/2017/2019 Program Committee		
	NAACL HLT 2016 Program Committee		
	COLING 2014/2016/2020/2022 Program Committee		
	DSALT 2016 Program Committee		
	SSST 2014 Workshop Co-Organizer		
	ACL 2014 SRW Program Committee		
	RANLP 2013 SRW Program Committee		
	ACL 2013 SRW Workshop Co-Chair		
INVITED TALKS	University of Cambridge	LTL Seminar Series	May 11, 2017
	<i>Building a True Semantic World: Generalizing set-theoretic semantics in vector spaces</i>		
	Ludwig Maximilians University (LMU)	CIS Seminar Series	Nov. 29, 2016
	<i>Building a True Semantic World: Generalizing set-theoretic semantics in vector spaces</i>		
	University of Edinburgh	ILCC Seminar Series	May 23, 2014
	<i>Adjective modification in compositional distributional semantics</i>		
	University of Stuttgart	IMS Seminar Series	Jan. 20, 2014
<i>Distributional semantic phrases vs. semantic distributional nonsense</i>			
LANGUAGES	English	Fluent (Mother language)	
	Spanish	Fluent (Mother language)	
	Italian	Fluent	
	German	Strong Knowledge (B2)	
COMPUTER SKILLS	Python	Advanced	
	R	Advanced	
	Perl	Advanced	
EXTRA- CURRICULAR ACTIVITIES	Violin Concerts , Florence, Italy		2008–2009
	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 Shpiatsky. Various performances including <i>The Nutcracker</i> , <i>Cipollino</i> , <i>Paquita</i> , <i>Don Quijote</i> , <i>Swan Lake</i> and <i>Giselle</i> .		
	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			