Scott Martin

Mission-driven technical leader
San Francisco Bay Area

🌐 http://www.coffeeblack.org/

Research Interests

Computational, formal, and mathematical linguistics; parsing and semantic modeling; anaphora resolution; discourse semantics and pragmatics; dialog; paraphrasing; generation.

Education

DEGREES

Ph.D. in Linguistics, Ohio State University, 2013. Thesis titled *The Dynamics of Sense and Implicature Committee*: Carl Pollard (co-advisor), Craige Roberts (co-advisor), and Michael White.

M.A. in Linguistics, Ohio State University, 2011.

B.A. *cum laude* in French and Philosophy, Florida State University, 1995.

CERTIFICATIONS

French Language Certificate (literary level), Institut Catholique de Paris, 1995.

French Language Certificate (written level 3), Institut Catholique de Paris, 1992.

Industry Experience

Head of Engineering, Onsemble, San Francisco, California, 2023–present.

Research Scientist, Engineer, Manager, and Director, Meta (formerly Facebook), Menlo Park, California, 2017–2023.

Principal Scientist, Ozlo, Inc., Palo Alto, California (acquired by Facebook), 2016–2017.

Research Scientist - Deep Natural Language, Yahoo Labs, Sunnyvale, California, 2015–2016.

NLP Research Scientist, Natural Language Understanding and Artificial Intelligence Laboratory, Nuance Communications. Sunnyvale, California, 2013–2015.

Research Positions

Presidential Fellow, Ohio State University (OSU), 2012–2013.

Graduate Research Associate, OSU Department of Linguistics. Defense Advanced Research Projects Agency (DARPA) *Machine Reading* project, through the Air Force Research Laboratory and BBN Technologies, 2012.

Graduate Research Associate, OSU Department of Linguistics. National Science Foundation grant *Learning to Generate High Quality Paraphrases with a Broad Coverage Lexicalized Grammar* (Michael White, principal investigator), 2008–2011.

Graduate Research Associate, OSU Department of Linguistics. Development of the OpenCCG natural language processing software package, 2006–2007.

Publications and Patents

DISSERTATION

Scott Martin. *The Dynamics of Sense and Implicature*. PhD thesis, Ohio State University, Columbus, OH, 2013.

BOOKS

Carl Pollard and Scott Martin. *Formal Foundations of Linguistic Theory*. CSLI Publications, Stanford, CA, in preparation.

JOURNAL ARTICLES

Scott Martin. Supplemental update. *Semantics and Pragmatics*, 9(5), 2016. doi:10.3765/sp.9.5.

Scott Martin and Carl Pollard. A higher-order theory of presupposition. *Studia Logica*, 100(4): 727–751, 2012. doi:10.1007/s11225-012-9427-6.

IN PEER-REVIEWED PROCEEDINGS

Scott Martin, Shivani Poddar, and Kartikeya Upasani. MuDoCo: Corpus for Multidomain Coreference Resolution and Referring Expression Generation. In *Proceedings of the 12th Conference on Language Resources and Evaluation (LREC 2020)*, pages 104–111, 2020.

Scott Martin. A unidimensional syntax-semantics interface for supplements. In Yusuke Kubota and Robert Levine, editors, *Proceedings of the Workshop on Empirical Advances in Categorial Grammar*, pages 82–106, 2015. 27th European Summer School in Logic, Language and Information.

Scott Martin and Carl Pollard. A dynamic categorial grammar. In Glyn Morrill, Reinhard Muskens, Rainer Osswald, and Frank Richter, editors, *Proceedings of the 19th Conference on Formal Grammar*, number 8612 in Lecture Notes in Computer Science, pages 138–154, 2014. Springer, Dordrecht. doi:10.1007/978-3-662-44121-3_9.

Gregory Kierstead and Scott Martin. A multistratal account of the projective Tagalog evidential 'daw'. In Anca Chereches, editor, *Proceedings of the 22nd Conference on Semantics and Linguistic Theory*, pages 326–346, 2012. CLC Publications, Ithaca, NY.

Kapil Thadani, Scott Martin, and Michael White. A joint phrasal and dependency model for paraphrase alignment. In Martin Kay and Christian Boitet, editors, *Proceedings of the 24th International Conference on Computational Linguistics*, pages 1229–1238, 2012.

Scott Martin. Weak familiarity and anaphoric accessibility in dynamic semantics. In Philippe de Groote and Mark-Jan Nederhof, editors, *Formal Grammar*, number 7395 in Lecture Notes in Computer Science, pages 287–306, 2012. Springer, Dordrecht. doi:10.1007/978-3-642-32024-8_19.

Scott Martin and Carl Pollard. Hyperintensional Dynamic Semantics: Analyzing definiteness with enriched contexts. In Philippe de Groote and Mark-Jan Nederhof, editors, *Formal Grammar*, number 7395 in Lecture Notes in Computer Science, pages 114–129, 2012. Springer, Dordrecht. doi:10.1007/978-3-642-32024-8_8.

Scott Martin and Michael White. Creating disjunctive logical forms from aligned sentences for grammar-based paraphrase generation. In *Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics*, pages 74–83, 2011. Association for Computational Linguistics, Portland, Oregon. Workshop on Monolingual Text-To-Text Generation.

Scott Martin, Rajakrishnan Rajkumar, and Michael White. Grammar engineering for CCG using Ant and XSLT. In *Proceedings of the NAACL HLT Workshop on Software Engineering, Testing, and Quality Assurance for Natural Language Processing*, pages 45–46, 2009. Association for Computational Linguistics, Boulder, Colorado.

D.J. Hovermale and Scott Martin. Developing an annotation scheme for English language learner spelling errors. In *Proceedings of the 5th Midwest Computational Linguistics Colloquium*, 2008.

Scott Martin. A proof-theoretic approach to French pronominal clitics. In Kata Balogh, editor, *Proceedings of the 13th ESSLLI Student Session*, pages 115–124, 2008. Hamburg, Germany. 20th European Summer School in Logic, Language and Information.

Michael White, Rajakrishnan Rajkumar, and Scott Martin. Towards broad coverage surface realization with CCG. In *Proceedings of the Workshop on Using Corpora for Natural Language Generation: Language Generation and Machine Translation*, 2007.

PATENTS

Scott Martin. Assisting Users with Personalized and Contextual Communication Content, October 2019a. U. S. patent application 15/966,455 (pending).

Scott Martin. Using Salience Rankings of Entities and Tasks to Aid Computer Interpretation of Natural Language Input, October 2019b. U. S. patent application 15/961,517 (pending).

Awards, Fellowships, and Honors

Presidential Fellowship, Ohio State University graduate school, 2012–2013.

David Dowty Travel Award, OSU Department of Linguistics, 2011.

Targeted Investment in Excellence Fellowship, OSU Department of Linguistics, 2008–2009.

MITX Award, *Education* category, Massachusetts Innovation and Technology Exchange, 2004.

Phi Beta Kappa, *Alpha of Florida* chapter, 1995.

Winthrop-King Scholarship, Florida State University (FSU) Department of Modern Languages and Linguistics, 1995.

Outstanding Undergraduate Student Award, FSU Department of Modern Languages and Linguistics, 1994–1995.

Florida Academic Scholarship, 1991–1995.

Presentations

INVITED TALKS AND PANELS

Scott Martin. It all depends: a modern, type-theoretic, compositional dynamic semantics for projection and beyond. Dynamic Semantics: Modern Type Theoretic and Category Theoretic Approaches, Ohio State University, Columbus, October, 2015.

Scott Martin. The Role of Salience Ranking in Anaphora Resolution. Workshop on Logic and Probabilistic Methods for Dialog, Universitat Pompeu Fabra, Barcelona, August, 2015. 27th European Summer School in Logic, Language and Information.

Scott Martin. Inferring the antecedent: Anaphora resolution off the deep end. Second Conference of the American Pragmatics Association, UCLA, October, 2014. Panel titled *Computational and experimental approaches to reference and anaphoric inference*.

Kathleen Dahlgren and Scott Martin. Cognition anaphora resolution. ParGram project meeting, Sunnyvale, California, USA, February, 2014. Hosted by Nuance Communications and the Center for the Study of Language and Information, Stanford University.

Scott Martin. The dynamics of sense and implicature: Anaphora, "pesupposition," and CIs. Stanford *Construction of Meaning* Workshop, October, 2013. Hosted by the Stanford linguistics department.

Scott Martin and Carl Pollard. Enriching contexts for type-theoretic dynamics. CAuLD Workshop on Logical Methods for Discourse, Nancy, France, December, 2009. Hosted by INRIA, the French national research institute on informatics and computation.

IN REFEREED VENUES

Scott Martin. A unidimensional syntax-semantics interface for supplements. Workshop on Empirical Advances in Categorial Grammar, Universitat Pompeu Fabra, Barcelona, August, 2015. 27th European Summer School in Logic, Language and Information.

Scott Martin and Carl Pollard. A dynamic categorial grammar. Conference on Formal Grammar, Tübingen, Germany, August, 2014. Colocated with ESSLLI.

Kapil Thadani, Scott Martin, and Michael White. A joint phrasal and dependency model for paraphrase alignment. International Conference on Computational Linguistics, Mumbai, India, December, 2012. Hosted by the Indian Institute of Technology.

Gregory Kierstead and Scott Martin. A multistratal account of the projective Tagalog evidential 'daw'. Conference on Semantics and Linguistic Theory, Chicago, Illinois, May, 2012. Hosted by the University of Chicago Department of Linguistics.

Scott Martin. Weak familiarity and anaphoric accessibility in dynamic semantics. Conference on Formal Grammar, Ljubljana, Slovenia, August, 2011. Colocated with ESSLLI.

Scott Martin and Michael White. Creating disjunctive logical forms from aligned sentences for grammar-based paraphrase generation. Workshop on Monolingual Text-to-text Generation, Portland, Oregon, June, 2011. Colocated with the ACL annual meeting.

Scott Martin and Carl Pollard. A higher-order theory of presupposition. Semantics Workshop of the American Midwest and Prairies, Ann Arbor, Michigan, November, 2010. Hosted by the University of Michigan Department of Linguistics.

Scott Martin and Carl Pollard. Hyperintensional Dynamic Semantics: Analyzing definiteness with enriched contexts. Conference on Formal Grammar, Copenhagen, Denmark, August, 2010. Colocated with ESSLLI.

Scott Martin, Rajakrishnan Rajkumar, and Michael White. Grammar engineering for CCG using Ant and XSLT. Workshop on Software Engineering, Testing, and Quality Assurance for Natural Language Processing, Boulder, Colorado, June, 2009. Colocated with NAACL-HLT.

D.J. Hovermale and Scott Martin. Developing an annotation scheme for English language learner spelling errors. Midwest Computational Linguistics Colloquium, Lansing, Michigan, May, 2008. Hosted by the Michigan State University Departments of Computer Science and Linguistics.

Scott Martin. A proof-theoretic approach to French pronominal clitics. 13th European Summer School in Logic, Language and Information Student Session, Hamburg, Germany, August, 2008. Hosted by the University of Hamburg.

Michael White, Rajakrishnan Rajkumar, and Scott Martin. Towards broad coverage surface

realization with CCG. Workshop on Using Corpora for Natural Language Generation: Language Generation and Machine Translation, Copenhagen, Denmark, September, 2007. Colocated with the Machine Translation Summit.

IN NON-REFEREED VENUES

Scott Martin. Putting the Conversation in Conversational AI. Ozlo, Palo Alto, California, April, 2017.

Scott Martin and Kathleen Dahlgren. Anaphora resolution using lexical resources and semantic representations. Nuance Research Conference, Montréal, Canada, March, 2015.

Scott Martin. Dynamic semantics in direct style. Ohio State University Logic, Language, Information and Computation Discussion Group, Columbus, OH, April–May, 2010.

Scott Martin. Using semantic dependencies to improve paraphrase alignment. Ohio State University Computational Linguistics Discussion Group, Columbus, OH, November, 2009.

Scott Martin. Asynchronous javascript and XML (AJAX) overview. Ohio State University Computational Linguistics Discussion Group, Columbus, OH, January, 2007.

Scott Martin. An introduction to subversion. Ohio State University Department of Linguistics, Columbus, OH, May, 2007. Hosted by the Library and Computing Committee.

Teaching

GRADUATE

Formal Foundations of Linguistics. (Assistant to Dr. Carl Pollard.) Foundational course on the mathematical tools used in linguistic theory, including set theory, formal language theory, abstract algebra and higher-order logic. Ohio State University, autumn 2009, autumn 2010, and autumn 2011 quarters.

Syntax 1. (Assistant to Dr. Robert Levine.) Overview of syntactic theory and description based on Head-driven Phrase Structure Grammar. OSU, autumn 2011 quarter.

UNDERGRADUATE

Language and Formal Reasoning. (Instructor of record.) Truth-conditional meaning in natural language and its interaction with deductive reasoning, formally analyzed using natural deduction for propositional logic. OSU, summer 2010, winter 2011 and 2012 quarters.

Language and Computers. (Instructor of record.) Broad-based overview of topics in computational linguistics. OSU, autumn 2007, winter 2008, and spring 2008 quarters.

Introduction to Language in the Humanities. (Instructor of record.) Survey course in general linguistics. OSU, autumn 2008 quarter.

SECONDARY

Assistant Lecteur d'Anglais (Assistant Lecturer in English), Lycée Jean Jaurès and Collège Paul Eluard. Reims, France, 1996–1997. Spoken and written English for non-native speakers.

Professional Service and Memberships

ADVISING

First qualifying paper committee for Jordan Needle, Ohio State University PhD student, 2015–2020.

PROGRAM COMMITTEES

Semantics and Linguistic Theory (SALT), 2015, 2016, 2018, 2020, 2022, 2024.
Linguistics and Philosophy, 2023.
Journal of Logic, Language, Information, 2020, 2022.
North American Association for Computational Linguistics (NAACL) annual meeting, 2019.
Experimental Pragmatics Conference (XPRAG), 2017, 2019.
Association for Computational Linguistics (ACL) annual meeting, 2014, 2015, 2018.
European Association for Computational Linguistics (EACL) annual meeting, 2017.
European Summer School in Logic, Language, and Information (ESSLLI) Student Session, 2015, 2016, 2017.
Annual Meeting of the Cognitive Science Society (COGSCI) 37, 2015.
Conference on Empirical Methods in Natural Language Processing (EMNLP), 2014, 2015.
International Conference on Computational Linguistics (COLING), 2014.
Type Theory and Natural Language Semantics Workshop (co-located with the EACL annual meeting), 2014.
Journal of Logic and Computation, 2013.

ORGANIZING COMMITTEES

23rd ESSLLI, 2011.
SALT 19, 2009.
ACL annual meeting, 2008.

OSU DEPARTMENT OF LINGUISTICS

Web Committee, 2006–2007 and 2011–2012.
Graduate Curriculum Review Committee, 2008–2009.
OSU Working Papers in Linguistics Committee, 2008–2009.
Treasurer of the Student Linguistics Association, 2007–2009.

MEMBERSHIPS

Association for Computational Linguistics (ACL), since 2005.
ACL Special Interest Group on Computational Semantics (SIGSEM), since 2013.
Association for Mathematics of Language, since 2008.

Skills

CORE COMPETENCIES

Computational linguistics, mathematical and formal linguistics, natural language processing, semantic modeling, software engineering.

LANGUAGES SPOKEN

English (native), French (fluent), German (basic knowledge).