ELISA FERRACANE

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RESEARCH INTERESTS

I am an NLP Research Scientist interested in understanding the ambiguity and subjectivity of conversational discourse.

EDUCATION

PhD in Linguistics, specialization in Computational Linguistics Aug 2020
The University of Texas at Austin, Texas.
Dissertation: Subjective Discourse Analysis
Advisors: Dr. Katrin Erk, Dr. Junyi Jessy Li

Master's in Linguistics May 2018
The University of Texas at Austin, Texas.
Thesis: Testing the usefulness of RST and more general representations for discourse analysis across domains and applications
Advisors: Dr. Katrin Erk, Dr. Junyi Jessy Li

Bachelor of Science in Computer Engineering 2001
University of Puerto Rico, Mayagüez, Puerto Rico.

RESEARCH EXPERIENCE

Full-time Research Scientist, NLP Sep 2020-present
Abridge AI; Pittsburgh, Pennsylvania
Evaluated a deployed classifier across different populations to understand disparities in performance. Incorporated medical ontologies into information extraction techniques on doctor-patient conversations. Leading research reading group and knowledge dissemination to incorporate latest NLP research.

Research Intern Summer 2019
Google; San Francisco, California; Hosts: Praveen Paritosh, Jason Baldridge
Designed a scalable data scraping and annotation process to construct debates in the "wild" out of Reddit threads. Created a small dataset to validate the process and understand the nature of the data.

Deep Learning Research Intern Summer 2018
Salesforce Research; Palo Alto, California
Explored the discourse structure induced using different forms of attention, different objective functions, and adding a small amount of supervision.

PEER-REVIEWED PUBLICATIONS

[1] Sanjana Ramprasad, Elisa Ferracane, and Zachary Lipton. Analyzing LLM behavior in dialogue summarization: Unveiling circumstantial hallucination trends. In Lun-Wei Ku, Andre Martins, and Vivek Srikumar, editors, *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 12549–12561, Bangkok, Thailand. 2024. Association for Computational Linguistics. https://aclanthology.org/2024.acl-long.677/.

[2] Sanjana Ramprasad, Elisa Ferracane, and Sai P Selvaraj. Generating more faithful and consistent SOAP notes using attribute-specific parameters. In *Proceedings of Machine Learning Research*, volume 219, pages 1–19. 2023. https://static1.squarespace.com/static/59d5ac1780bd5ef9c396eda6/t/64d1b39ea8f777707fba6ffd/1691464606667/ID197_Research+Paper_2023.pdf.

[3] Elisa Ferracane, Greg Durrett, Junyi Jessy Li, and Katrin Erk. "Did they answer? Subjective acts and intents in conversational discourse". In *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pages 1626–1644, Online. 2021. Association for Computational Linguistics. https://www.aclweb.org/anthology/2021.naacl-main.129.

[4] Elisa Ferracane, Greg Durrett, Junyi Jessy Li, and Katrin Erk. Evaluating Discourse in Structured Text Representations. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, pages 646–653, Florence, Italy. 2019. Association for Computational Linguistics. https://www.aclweb.org/anthology/P19-1062.

[5] Elisa Ferracane, Titan Page, Junyi Jessy Li, and Katrin Erk. From news to medical: Cross-domain discourse segmentation. In *Proceedings of the Workshop on Discourse Relation Parsing and Treebanking 2019*, pages 22–29, Minneapolis, MN. 2019. Association for Computational Linguistics. https://www.aclweb.org/anthology/W19-2704.

[6] Colin Bannard, Mariana Leriche, Oliver Bandmann, Christopher H. Brown, Elisa Ferracane, Álvaro Sánchez-Ferro, José Obeso, Peter Redgrave, and Tom Stafford. Reduced habit-driven errors in Parkinson's Disease. *Scientific Reports*, 9. 2019. https://doi.org/10.1038/s41598-019-39294-z.

[7] Elisa Ferracane, Su Wang, and Raymond Mooney. Leveraging discourse information effectively for authorship attribution. In *Proceedings of the Eighth International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pages 584–593, Taipei, Taiwan. 2017. Asian Federation of Natural Language Processing. https://www.aclweb.org/anthology/I17-1059.

[8] Elisa Ferracane, Iain Marshall, Byron C. Wallace, and Katrin Erk. Leveraging coreference to identify arms in medical abstracts: An experimental study. In *Proceedings of the Seventh International Workshop on Health Text Mining and Information Analysis*, pages 86–95, Austin, TX. 2016. Association for Computational Linguistics. https://www.aclweb.org/anthology/W16-6112.

OTHER PUBLICATIONS

[1] Elisa Ferracane and Sandeep Konam. Towards Fairness in Classifying Medical Conversations into SOAP Sections. In *Workshop on Trustworthy AI for Healthcare, Online*. 2021. 02/09/2021. https://arxiv.org/abs/2012.07749.

[2] Elisa Ferracane. The effect of informational and energetic masking on foreign-accent adaptation. In *Journal of the Acoustical Society of America, Jacksonville, Florida*, volume 1947, page 138. 2015. 10/26/2015.

[3] Elisa Ferracane and Cynthia P. Blanco. Effect of noise on foreign-accent adaptation. In *Journal of the Acoustical Society of America, Pittsburgh, Pennsylvania*, volume 2435, page 137. 2015. 5/27/2015.

[4] Cynthia P. Blanco and Elisa Ferracane. Language proficiency, context influence foreign-accent adaptation. In *Journal of the Acoustical Society of America, Indianapolis, Indiana*, volume 2109, page 136. 2014. 10/23/2014.

BOOK CHAPTERS

[1] Fabio Albertoni, Henry Cui, Elisa Ferracane, James Kochuba, Ut Le, Bill O'Donnell, Gustavo Cezar de Medeiros Paiva, Vipin Rathor, Grzegorz Smolko, Rengan Sundararaman, and Tam Tran. *Implementing Kerberos in a WebSphere Application Server Environment.* IBM Redbooks. 2009.

[2] Carla Sadtler, Fabio Albertoni, Leonard Blunt, Shu Guang Chen, Elisa Ferracane, Grzegorz Smolko, Joerg-Ulrich Veser, and Sean Zhu. *WebSphere Application Server V7.0 Security Guide.* IBM Redbooks. 2009.

SKILLS

Languages	English, Spanish, Italian (fluent); French, Japanese, Chinese (limited)
Programming Languages	Python, Java, R; knowledge of Jython, shell script, SQL, javascript, HTML, C/C++, Scala
Operating Systems	UNIX, Linux, macOS, z/OS, Windows
Machine Learning	PyTorch, TensorFlow, DyNet, torchtext, scikit-learn, numpy, spacy, pandas
Software	git, Jupyter Notebook, AWS, Docker, Apache Maven, Agile development, Rational Tools, R Studio, E-Prime, Eclipse, IBM WebSphere Application Server, HTTPUnit, Junit
Communication	Excellent written and oral communication skills across large organizations, different cultures and languages
Leadership	Extensive experience leading and organizing small teams in successful product deliveries

WORK EXPERIENCE

Lead Software Developer 2006-2015
IBM; Austin, Texas
Technical lead for WebSphere for z/OS security development. Customer advocate for global financial firm. Technical mentor for new hires and team members.

Member of Corporate Services Corp in Kenya June 2012
IBM; Nairobi, Kenya
Nominated for on-location philanthropic assignment. Collaborated with NGO and intergovernmental body to design a communications network for an energy-trading platform spanning ten Eastern Africa countries.

Communications Lead for IBM Software Group Midwest US Cluster 2009-2013
IBM; Austin, Texas
Helped organize and carry out monthly technical education events for IBM sites across the Midwest US.

Level 3 Customer Support Specialist for WebSphere Sep-Dec 2010
IBM; Austin, Texas
Provided technical support for WebSphere customers.

Graphical User Interface Developer for WebSphere 2005-2006
IBM; Austin, Texas
Developed parts of the WebSphere GUI administrative console.

System Tester for WebSphere on z/OS 2002-2005
IBM; Poughkeepsie, New York
Led in defining and standardizing test processes; educated other teams on the product. Technical mentor for interns.

AWARDS AND FELLOWSHIPS

Best Reviewer Award, Discourse & Pragmatics Track; EMNLP 2023
National Science Foundation Graduate Research Fellowship (NSF GRFP) 2017-2020
Graduate School Mentoring Fellowship; The University of Texas at Austin 2015-2016
Values Award - Trust and personal responsibility in all relationships; IBM 2015
Bravo Award - Exceptional performance and contributions; IBM 2005; 2004

INVITED TALKS

[1] Subjective acts/intents in conversations. *NLP Reading Group, Google*, 6/28/2021.

[2] Subjective Discourse. *Penn NLP, University of Pennsylvania*, 5/1/2020.

[3] Intro to NLP, B-O-W and Language Modeling. *Women In Data Science Meetup, Austin, Texas*, 7/24/2017.

[4] Data Science from Scratch Workshop: Naïve Bayes. *Women In Data Science Meetup, Austin, Texas*, 7/28/2016.

[5] Intro to NLP and Computational Linguistics. *UT Undergraduate Linguistics Society, Austin, Texas*, 3/3/2016.

[6] Security in WebSphere Application Server 8.5: Liberty Profile and other updates. *IBM System Z Security Conference, Montpellier, France*, 10/14/2012.

[7] IBM WebSphere Application Server v7 for z/OS: What's new for security. *Virtual WebSphere z/OS User Group meeting, online*, 4/12/2010.

[8] Multiple presentations. *WebSphere Application Server Week, Ohio*, 4/3/2010-4/8/2010.

[9] What's New in WebSphere Application Server v7 Security. *IBM System Z Security Conference, Montpellier, France*, 10/13/2010.

SERVICE

Conference reviewing

Standing Reviewer for ACL Rolling Review. 2021-present
Program Committee member, SIGDIAL, COLING. 2022-2025
Reviewer for Dialogue & Discourse Journal. 2023, 2021, 2020
Program Committee member, ACL, EACL, EMNLP, NAACL, CONLL, CRAC and CODI Workshops. 2021
Program Committee member, EMNLP, ACL, COLING, CONLL, *SEM, CODI Workshop. 2020
Program Committee member, EMNLP-IJCNLP, AAAI. 2019

TEACHING ACTIVITIES & ADVISING

Course Instructor

Department of Linguistics, The University of Texas at Austin
LIN 371: Marchine Learning for Text Analysis Spring 2026

Mentor and Panelist

ACL Mentorship program
Panel: Finding an Internship in NLP Feb 2022
Alumni @ Work, The University of Texas at Austin
Mentoring for careers in NLP. Mar 2022

Mentor for high school student

Pittsburgh Regional Science & Engineering Fair: Carnegie Science Award Winner
Mentoring in development, coding and writing of experiments in Natural Language Processing.
Adhitya Thirumala Sep 2021-2023

Mentor for undergraduate/graduate student
Society for Advancing Gender Equity in STEM (SAGES)
Mentoring undergraduate/graduate student in research skills and experiences.

Anushka Deshmukh	2026
Katie Yu	2025
Jianing Mu	2023-2024
Brianna Flynn	2022
Amanda Adkins (2022 NSF GRFP recipient)	2021

Mentor for international graduate student
The University of Texas at Austin
Helping international graduate student with fluency in English.

Tian Zhao	Jan-May 2019

Mentor for Linguistics undergraduate
The University of Texas at Austin
Mentoring undergraduate in RST-style discourse parsing in the medical domain.

Titan Page	Aug-Dec 2017

Mentor in the Pre-graduate School Internship Program
The University of Texas at Austin
Mentor students in researching honor's thesis and applying to graduate school.

Alessandra Urbina	Aug-Dec 2018
Madhav Narayan	Aug-Dec 2017
María Gavino	Jan-May 2016

Class assistant for Summer Statistics Institute, Dept. of Statistics & Data Sciences
The University of Texas at Austin
Facilitated learning in 4-day workshop. May 2017; May 2016

PATENTS ISSUED

[1] Paul W Bennett, Elisa Ferracane, Daniel E Morris, and Michael C Thompson. Flexibly assigning security configurations to applications, August 27 2013. US Patent 8,522,307.

[2] Paul W Bennett, Elisa Ferracane, William J O'donnell, and Michael C Thompson. Security role testing using an embeddable container and properties object, February 28 2017. US Patent 9,582,407.

[3] Paul W Bennett, Elisa A Ferracane, Daniel E Morris, and Michael C Thompson. Dynamic switching of security configurations, March 22 2016. US Patent 9,292,702.

[4] Elisa Ferracane, Paul William Bennett, William J O'donnell, Ajay Reddy Karkala, Ut Van Le, Michael Craig Thompson, and Maxim Avery Moldenhauer. System and method for merging security constraints when using security annotations, February 4 2014. US Patent 8,645,679.

[5] William J O'donnell, Paul William Bennett, Elisa Ferracane, Ajay Reddy Karkala, Ut Van Le, and Michael Craig Thompson. System and method to control display of a realm name, January 20 2015. US Patent 8,938,791.

[6] William J O'donnell, Paul William Bennett, Elisa Ferracane, Michael Craig Thompson, and Michael Dettlaff Christopher. Refreshing group membership information for a user identifier associated with a security context, April 22 2014. US Patent 8,707,405.

[7] William J O'donnell, Elisa Ferracane, Paul W Bennett, and Michael C Thompson. System and method for maintaining dual identity in a server process, February 10 2015. US Patent 8,955,052.

VOLUNTEERING

Volunteer at Drive-A-Senior Organization 2014-present
Austin, TX
Provide transportation and companionship for senior citizens.

Teacher Assistant for Hour of Code Dec 2015
Pérez Elementary School; Austin, TX
Introduced primary school children to coding concepts.

Tutor at the Settlement Home for Children 2009-2013
Austin, TX
Tutored abused girls in multiple high school subjects.

Volunteer at Red Cross 2008, 1998
Austin, TX and Mayagüez, PR
Helped people at shelters displaced by hurricanes.

Volunteer at Engineer Week IBM 2012, 2010
Austin, TX
Led educational workshops encouraging middle-school girls to pursue STEM careers.

Tutor at Literacy Connections of Duchess County 2003-2005
Literacy Volunteers of America; Poughkeepsie, NY
Taught adult student to read and write.