Rachel Rudinger

CONTACT INFORMATION	Department of Computer Science Center for Language and Speech Processing Johns Hopkins University Hackerman 321	*email:* rudinger@jhu.edu *web:* rudinger.github.io

EDUCATION

Ph.D. Computer Science Expected Spring 2019
Johns Hopkins University
Center for Language and Speech Processing
Advised by Benjamin Van Durme

M.S.E. Computer Science Spring 2016
Johns Hopkins University
Center for Language and Speech Processing

B.S. Computer Science Spring 2013
Yale University *cum laude*

FELLOWSHIPS

Graduate Research Fellowship Program (GRFP) Awarded 2013
National Science Foundation

Robert B. Pond, Sr. Doctoral Student Fellowship Awarded 2013
Johns Hopkins Whiting School of Engineering

Richard U. Light Fellowship for Language Study in East Asia Awarded 2009, 2010
Yale University

RESEARCH EMPLOYMENT

Full-Time Ph.D. Research Assistant Fall 2013-present
Johns Hopkins University, Department of Computer Science
Advisor: Benjamin Van Durme
Topics: Knowledge Acquisition from Text, Common-sense Reasoning, Event Semantics, Bias in AI

Research Intern Summer 2015
Allen Institute for Artificial Intelligence (AI2) Seattle, WA
Host: Peter Clark
Topics: Inference Rule Mining, Natural Language Inference, Question-Answering

Visiting Research Assistant 2014
Saarland University, Department of Computational Linguistics Germany
Hosts: Vera Demberg, Manfred Pinkal
Topics: Knowledge Acquisition from Text

Research Workshop Team Member Summer 2014
First Jelinek Memorial Workshop (JSALT), six weeks Prague, CZ
Charles University and Johns Hopkins University
Team Leads: Jason Eisner, Benjamin Van Durme, Kyle Rawlins
Topics: Probabilistic Meaning Representations, Decompositional Semantics

Research Workshop Team Member Summer 2012
Center for Language and Speech Processing, Johns Hopkins University
Team Leads: Hal Daumé III, Marine Carpuat, Chris Quirk, Alexander Fraser
Topic: Domain Adaptation in Statistical Machine Translation

Teaching	**Teaching Assistant** Fall 2018

<table>
<tr><td>Teaching
Advising
Mentorship</td><td>

Teaching Assistant — Fall 2018
Johns Hopkins University Department of Computer Science
Artificial Intelligence (CS 464/664)

Master's Research Project Co-Advisor — Summer 2018
Advisee: Tu Lan, current JHU Master's student
Topic: Reduction of bias and stereotyping in NLP training data

Master's Research Project Assisting Advisor — Spring 2018
Advisee: Ryan Culkin, current JHU Master's student
Topic: Automatic Event Detection from Text

Undergraduate Research Project Co-Advisor — Spring 2017
Advisee: Lisa Bauer, JHU Undergraduate (now Ph.D. at UNC Chapel Hill)
Topic: Crowdsourced human verification of automatic text analysis tool.

High School Women in STEM Research Mentor — School Yr. 2014-15, 2015-16
WISE program with Garrison Forest High School. — Owings Mills, MD
Project 1 (2014-2015): Natural language generation with context-free grammars.
Project 2 (2015-2016): Building an animal-expert chat-bot.

Johns Hopkins Center for Talented Youth (CTY) — Summer 2013
Teaching Assistant, Mathematical Logic.

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Publications

P17. **Rachel Rudinger**, Adam Teichert, Ryan Culkin, Sheng Zhang, and Benjamin Van Durme. 2018. Neural-davidsonian semantic proto-role labeling. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, Brussels, Belgium, pages 944–955. http://www.aclweb.org/anthology/D18-1114 [**Course Syllabus**]

P16. Aaron Steven White, **Rachel Rudinger**, Kyle Rawlins, and Benjamin Van Durme. 2018. Lexicosyntactic inference in neural models. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, Brussels, Belgium, pages 4717–4724. http://www.aclweb.org/anthology/D18-1501

P15. Sheng Zhang, Xutai Ma, **Rachel Rudinger**, Kevin Duh, and Benjamin Van Durme. 2018. Cross-lingual decompositional semantic parsing. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, Brussels, Belgium, pages 1664–1675. http://www.aclweb.org/anthology/D18-1194

P14. Adam Poliak, Aparajita Haldar, **Rachel Rudinger**, J. Edward Hu, Ellie Pavlick, Aaron Steven White, and Benjamin Van Durme. 2018. Collecting diverse natural language inference problems for sentence representation evaluation. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, Brussels, Belgium, pages 67–81. http://www.aclweb.org/anthology/D18-1007

P13. **Rachel Rudinger**, Jason Naradowsky, Brian Leonard, and Benjamin Van Durme. 2018. Gender bias in coreference resolution. In *Proceedings of the Annual Meeting of the North American Association of Computational Linguistics (NAACL)*. http://aclweb.org/anthology/N18-2002

P12. Adam Poliak, Jason Naradowsky, Aparajita Haldar, **Rachel Rudinger**, and Benjamin Van Durme. 2018. Hypothesis only baselines in natural language inference. *StarSEM* http://aclweb.org/anthology/S18-2023 [**Best Paper Award**]

P11. **Rachel Rudinger**, Aaron Steven White, and Benjamin Van Durme. 2018. Neural models of

factuality. In *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*. Association for Computational Linguistics, New Orleans, Louisiana. http://aclweb.org/anthology/N18-1067 [**Course Syllabus**]

P10. Sheng Zhang, **Rachel Rudinger**, and Benjamin Van Durme. 2017. An evaluation of predpatt and open ie via stage 1 semantic role labeling. In *IWCS 2017 12th International Conference on Computational Semantics*. http://www.aclweb.org/anthology/W/W17/W17-6944.pdf [**Course Syllabus**]

P9. **Rachel Rudinger**, Kevin Duh, and Benjamin Van Durme. 2017. Skip-prop: Representing sentences with one vector per proposition. In *IWCS 2017 12th International Conference on Computational SemanticsShort papers*. http://www.aclweb.org/anthology/W17-6936

P8. **Rachel Rudinger**, Chandler May, and Benjamin Van Durme. 2017. Social bias in elicited natural language inferences. In *Proceedings of the First Workshop on Ethics in Natural Language Processing*. Association for Computational Linguistics, page 7479. http://www.ethicsinnlp.org/workshop/pdf/EthNLP09.pdf

P7. Sheng Zhang, **Rachel Rudinger**, Kevin Duh, and Benjamin Van Durme. 2017. Ordinal common-sense inference. *Transactions of the Association of Computational Linguistics* 5. https://arxiv.org/abs/1611.00601 [**Course Syllabus**]

P6. Aaron Steven White, Drew Reisinger, Keisuke Sakaguchi, Tim Vieira, Sheng Zhang, **Rachel Rudinger**, Kyle Rawlins, and Benjamin Van Durme. 2016. Universal decompositional semantics on universal dependencies. In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, pages 1713–1723. http://aclweb.org/anthology/D16-1177 [**Course Syllabus**]

P5. **Rachel Rudinger**, Pushpendre Rastogi, Francis Ferraro, and Benjamin Van Durme. 2015. Script induction as language modeling. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing*. Association for Computational Linguistics, pages 1681–1686. https://doi.org/10.18653/v1/D15-1195

P4. Drew Reisinger, **Rachel Rudinger**, Francis Ferraro, Craig Harman, Kyle Rawlins, and Benjamin Van Durme. 2015. Semantic proto-roles. *Transactions of the Association of Computational Linguistics* 3:475–488. http://aclweb.org/anthology/Q15-1034 [**Course Syllabus**]

P3. **Rachel Rudinger**, Vera Demberg, Ashutosh Modi, Benjamin Van Durme, and Manfred Pinkal. 2015. Learning to predict script events from domain-specific text. In *Proceedings of the Fourth Joint Conference on Lexical and Computational Semantics*. Association for Computational Linguistics, pages 205–210. https://doi.org/10.18653/v1/S15-1024

P2. **Rachel Rudinger** and Benjamin Van Durme. 2014. Is the stanford dependency representation semantic? In *Proceedings of the Second Workshop on EVENTS: Definition, Detection, Coreference, and Representation*. Association for Computational Linguistics, Baltimore, Maryland, USA, pages 54–58. http://www.aclweb.org/anthology/W14-2908 [**Course Syllabus**]

P1. Marine Carpuat, Hal Daume III, Katharine Henry, Ann Irvine, Jagadeesh Jagarlamudi, and **Rachel Rudinger**. 2013. Sensespotting: Never let your parallel data tie you to an old domain. In *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*. Association for Computational Linguistics, pages 1435–1445. http://aclweb.org/anthology/P13-1141

Talks   *Invited Talk*   January 2019

Georgetown University

Neural-Davidsonian Semantic Proto-Role Labeling   November 2018
Empirical Methods in Natural Language Processing (EMNLP). Brussels, Belgium.

Neural Models of Factuality (paper accepted as a talk)   June 2018
North American Association for Computational Linguistics (NAACL)

Bias in Text   November 2017
Center for Language and Speech Processing Seminar

Bias in Text   November 2017
"Knowledge Discovery from Text," Course Guest Lecture, Johns Hopkins University

Script Induction as Language Modeling   November 2015
Center for Language and Speech Processing Seminar

Learning Scripts from Thematically Related Texts   July 2014
Forum Entwicklung und Anwendung von Sprach-Technologien (FEAST)
Saarland University, Department of Computational Linguistics and Phonetics

Is the Stanford Dependency Representation Semantic?   January 2015
Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)

PROFESSIONAL DEVELOPMENT	**MIT Rising Stars in EECS**, by application	October 2018
	Facebook Women in Research Lean In, by invitation	March 2018

MEDIA   **NLP Highlights Podcast**, Guest Interview ($> 1,200$ listens) [link]   September 2018

SOFTWARE & DATASETS

Neural SPRL Neural models for semantic proto-role labeling.
https://github.com/decomp-sem/neural-sprl

Winogender Schemas, a dataset for assessing gender bias in coreference resolution systems.
https://github.com/rudinger/winogender-schemas

Nachos, a tool for learning narrative chains.
https://github.com/rudinger/nachos

PredPatt*, a tool for predicate-argument analysis of text.
https://github.com/hltcoe/PredPatt

Semantic Proto-Roles Dataset* (SPRL), decompositional semantic annotations over PropBank.
http://decomp.net/semantic-proto-roles

*contributor

OTHER SERVICE   **Department Head Search, Student Subcommittee**   Fall 2018

Ph.D. Admissions Committee, Johns Hopkins Department of Computer Science   2016-2019

Peer Reviewing for Journals, Conferences, and Workshops
ACL (Top Reviewer Recognition), EMNLP, IJCNLP, EVENTS Workshop at ACL, EventStory
Workshop at COLING, StarSem, TACL*, EACL* (*secondary reviewer)

North American Computational Linguistics Olympiad (NACLO)
Organizing Committee (2014-2015) for the Johns Hopkins regional test site.

JHU Dept. of Computer Science, graduate contact person for NLP

ORGANIZATIONS	**Graduate Association of Women in CS & EE (GRACE)**, JHU	2016-present
	Women of Whiting (WoW), Whiting School of Engineering, JHU	2015, 2017-present
	Women Active in Computer Science at Yale (WACSY), treasurer	2011-2013
	STEM Sibs, Yale University	2012-2013

SKILLS

Computer
Lanaguages: Python, Java, Scala, C, R, Scheme/LISP, Matlab
Deep Learning: PyTorch, Tensorflow, Sockeye
Misc: bash, LaTeX, git

Languages
Mandarin Chinese (proficient/fluent), HSK level 8
German (intermediate)
Spanish (beginner-intermediate)

Graduate Courses
Natural Language Processing, Machine Learning & Graphical Models, Matrix Analysis, Representation Learning, Formal Semantics, Event Semantics, Big Data & Scalable Systems, Advanced Data-Intensive Computing