

# Samuel J. Wiseman

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<b>Current Appointment</b>	<b>Research Assistant Professor</b> Toyota Technological Institute at Chicago	Sept. 2018 – present
<b>Education</b>	<b>Harvard University</b> , Ph.D., Computer Science Dissertation: <i>Structured Neural Models for Coreference and Generation</i> Advisors: Alexander M. Rush, Stuart M. Shieber	Sept. 2012 – May 2018
	<b>Princeton University</b> , A.B., Philosophy, Magna Cum Laude Certificate: Program in Applications of Computing	June 2010
<b>Honors and Awards</b>	<b>Outstanding Reviewer</b> , NAACL <b>Siebel Scholar</b> <b>Honorable Mention for Best Paper</b> , EMNLP <b>Harvard Bok Center Certificate of Distinction in Teaching</b> <b>Phi Beta Kappa</b> , Princeton University	2018 2018 2016 Spring 2014, Spring 2016 June 2010
<b>Conference Publications</b>	Amortized Bethe Free Energy Minimization for Learning MRFs. Sam Wiseman and Yoon Kim. <i>NeurIPS</i> , 2019.	
	Label-Agnostic Sequence Labeling by Copying Nearest Neighbors. Sam Wiseman and Karl Stratos. <i>ACL</i> , 2019.	
	Controllable Paraphrase Generation with a Syntactic Exemplar. Mingda Chen, Qingming Tang, Sam Wiseman, and Kevin Gimpel. <i>ACL</i> , 2019.	
	A Multi-Task Approach for Disentangling Syntax and Semantics in Sentence Representations. Mingda Chen, Qingming Tang, Sam Wiseman, and Kevin Gimpel. <i>NAACL</i> , 2019.	
	Learning Neural Templates for Text Generation. Sam Wiseman, Stuart M. Shieber, and Alexander M. Rush. <i>EMNLP</i> , 2018.	
	Entity Tracking Improves Cloze-style Reading Comprehension. Luong Hoang, Sam Wiseman, and Alexander M. Rush. <i>EMNLP</i> , 2018.	
	Semi-Amortized Variational Autoencoders. Yoon Kim, Sam Wiseman, Andrew C. Miller, David Sontag, Alexander M. Rush. <i>ICML</i> , 2018.	
	Challenges in Data-to-Document Generation. Sam Wiseman, Stuart M. Shieber, and Alexander M. Rush. <i>EMNLP</i> , 2017.	
	Sequence-to-Sequence Learning as Beam Search Optimization. Sam Wiseman and Alexander M. Rush. <i>EMNLP</i> , 2016. Honorable Mention for Best Paper. <ul style="list-style-type: none"><li>Invited for oral presentation at NeurIPS 2016 Deep Learning Symposium</li></ul>	
	Learning Global Features for Coreference Resolution. Sam Wiseman, Alexander M. Rush, and Stuart M. Shieber. <i>NAACL</i> , 2016.	
	Learning Anaphoricity and Antecedent Ranking Features for Coreference Resolution. Sam Wiseman, Alexander M. Rush, Stuart M. Shieber, and Jason Weston. <i>ACL</i> , 2015.	
	Discriminatively Reranking Abductive Proofs for Plan Recognition. Sam Wiseman and Stuart Shieber. <i>ICAPS</i> , 2014.	
<b>Workshop and Preprint Papers</b>	Learning Deep Latent-variable MRFs with Amortized Bethe Free Energy Minimization. Sam Wiseman. DeepGenStruct at ICLR, 2019.	
	A Tutorial on Deep Latent Variable Models of Natural Language. Yoon Kim*, Sam Wiseman*,	

Alexander M. Rush. arXiv:1812.06834. EMNLP 2018 Tutorial Document.

Training Language Models Using Target-Propagation. Sam Wiseman, Sumit Chopra, Marc'Aurelio Ranzato, Arthur Szlam, Ruoyu Sun, Soumith Chintala, Nicolas Vasilache. arXiv:1702.04770, February 2017.

Antecedent Prediction without a Pipeline. Sam Wiseman, Alexander M. Rush, and Stuart M. Shieber. CORBON Workshop, June 2016.

Extracting Multi-word, Entity-specific Topics and their Interrelations from Online Medical Forums. Sam Wiseman, Andrew Miller, Finale Doshi-Velez, and Stuart M. Shieber. MUCMD Workshop, August 2015.

## Service

- Area Chair (Generation), ACL 2020
- Organizing Committee: Midwest Speech and Language Days, 2019
- EMNLP 2018 Tutorial: Deep Latent Variable Models of Natural Language
- Reviewing: ACL, NAACL, EMNLP, ICML, ICLR, NeurIPS, COLING, Computational Linguistics
- Workshop Program Committees: CORBON at EACL 2017, CRAC at NAACL 2018, NeuralGen at NAACL 2019, DSNLNG at INLG 2019
- Chair of Discourse Poster Session, EMNLP 2017

## Teaching Experience

### Teaching Fellow

- Harvard CS 287: Statistical Natural Language Processing Spring 2016
- Harvard CS 187: Computational Linguistics Fall 2014
- Harvard CS 181: Machine Learning Spring 2014

## Mentoring

### Student Mentees

- Shuning Jin (U. Maryland), visiting student at TTIC Summer 2019 - present
- Tianyu Liu (Peking U.), visiting student at TTIC Summer 2019 - present
- Shira Eisenberg (UChicago), undergraduate directed research 2018 - 2019

### Thesis Committees

- Qingming Tang (TTIC) 2019 - present

## Academic Internships

### Facebook AI Research, New York, NY

Research Intern Summer 2016, Summer 2017

- Research on retrieval-based text generation, with Marc'Aurelio Ranzato, Arthur Szlam, and Mike Lewis (Summer 2017)
- Research on training RNNs with target-propagation, with Sumit Chopra, Marc'Aurelio Ranzato, and Arthur Szlam (Summer 2016)

## Work Experience

### Wireless Generation, Brooklyn, NY

Software Developer, Reporting and Analytics Team Feb. 2012 – July 2012

### Columbia University, New York, NY

Research Programmer, Spoken Language Processing Group Sept. 2011 – Jan. 2012

### Morgan Stanley, New York, NY

Software Developer, Prime Brokerage Margin Calculation Team July 2010 – June 2011

<b>Invited Talks</b>	Invited Talk, Google Ads Research	December 2018
	Collaborative & Knowledge-backed Language Generation Workshop, TTIC	July 2018
	Invited Talk, Boston University	February 2018
	Invited Talk, Wesleyan University	February 2018
	Invited Talk, TTIC	January 2018
	NeurIPS Deep Learning Symposium	December 2016
	Kensho (company) Research Meeting	February 2016
	Boston Children's Hospital NLP Lab Reading Group	September 2015
	Meaningful Use of Complex Medical Data (MUCMD) Conference	August 2015

## Open Source Projects

**nn\_coref** ([https://github.com/swiseman/nn\\_coref](https://github.com/swiseman/nn_coref))

- A neural coreference system.

**BSO** (<https://github.com/harvardnlp/BSO>)

- Beam Search Optimization with seq2seq models.

**TPRNN** (<https://github.com/facebookresearch/TPRNN>)

- Training language models with target propagation

**data2text** (<https://github.com/harvardnlp/data2text>)

- A system for generating and evaluating summaries of structured data.

**neural-template-gen** (<https://github.com/harvardnlp/neural-template-gen>)

- A system for extracting template-like structures from text and generating with them.