Samuel J. Wiseman

swiseman@ttic.edu

Current Appointment

Research Assistant Professor

Sept. 2018 – present

Toyota Technological Institute at Chicago

Education

Harvard University, Ph.D., Computer Science

Sept. 2012 - May 2018

Dissertation: Structured Neural Models for Coreference and Generation

Advisors: Stuart M. Shieber, Alexander M. Rush

Princeton University, A.B., Philosophy, Magna Cum Laude

June 2010

Certificate: Program in Applications of Computing

Honors and Awards

Publications

Phi Beta Kappa, Princeton University

June 2010

Harvard Bok Center Certificate of Distinction in Teaching Spring 2014, Spring 2016 Honorable Mention for Best Paper, EMNLP

Siebel Scholar Outstanding Reviewer, NAACL

2018 2018

Conference

Learning Neural Templates for Text Generation. Sam Wiseman, Stuart M. Shieber, and Alexander M. Rush. In EMNLP, 2018.

Entity Tracking Improves Cloze-style Reading Comprehension. Luong Hoang, Sam Wiseman, and Alexander M. Rush. In EMNLP, 2018.

Semi-Amortized Variational Autoencoders. Yoon Kim, Sam Wiseman, Andrew C. Miller, David Sontag, Alexander M. Rush. In ICML, 2018.

Challenges in Data-to-Document Generation. Sam Wiseman, Stuart M. Shieber, and Alexander M. Rush. In *EMNLP*, 2017. Poster Presentation.

Sequence-to-Sequence Learning as Beam Search Optimization. Sam Wiseman and Alexander M. Rush. In EMNLP, 2016. Oral Presentation. Honorable Mention for Best Paper.

• Invited for oral presentation at NIPS 2016 Deep Learning Symposium

Learning Global Features for Coreference Resolution. Sam Wiseman, Alexander M. Rush, and Stuart M. Shieber. In NAACL, 2016. Oral Presentation.

Learning Anaphoricity and Antecedent Ranking Features for Coreference Resolution. Sam Wiseman, Alexander M. Rush, Stuart M. Shieber, and Jason Weston. In ACL, 2015. Oral Presenta-

Discriminatively Reranking Abductive Proofs for Plan Recognition. Sam Wiseman and Stuart Shieber. In *ICAPS*, 2014. Oral Presentation.

Workshop and **Preprint Papers**

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. Poster Presentation.

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. Oral Presentation.

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)

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

Service

- Reviewing: ACL, NAACL, EMNLP, ICML, ICLR, NIPS, COLING, Computational Linguistics
- Program Committee: Coreference Beyond Ontonotes (CORBON) 2017, Computational Models of Reference, Anaphora, and Coreference (CRAC) 2018
- Chair of Discourse Poster Session, EMNLP 2017

Invited Talks

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
NIPS 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
Harvard AI Research Group Meeting	December 2013

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

Open Source **Projects**

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.