Samuel J. Wiseman

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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: Alexander M. Rush, Stuart M. Shieber

Princeton University, A.B., Philosophy, Magna Cum Laude June 2010
Certificate: Program in Applications of Computing

Honors and Awards

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 2016
Siebel Scholar 2018
Outstanding Reviewer, NAACL 2018

Conference Publications

A Multi-Task Approach for Disentangling Syntax and Semanticsin Sentence Representations. Mingda Chen, Qingming Tang, Sam Wiseman, and Kevin Gimpel. In *NAACL* 2019.

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.

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

- Invited for oral presentation at NeurIPS 2016 Deep Learning Symposium

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

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

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

Workshop and Preprint Papers

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. Poster Presentation.

Extracting Multi-word, Entity-specific Topics and their Interrelations from Online Medical Fo-

rums. Sam Wiseman, Andrew Miller, Finale Doshi-Velez, and Stuart M. Shieber. MUCMD Workshop, August 2015. Oral Presentation.

Papers Under Review

Label-Agnostic Sequence Labeling by Copying Nearest Neighbors. Sam Wiseman and Karl Stratos. 2019.

Controllable Paraphrase Generation with a Syntactic Exemplar. Mingda Chen, Qingming Tang, Sam Wiseman, and Kevin Gimpel. 2019.

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

- 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
- Chair of Discourse Poster Session, EMNLP 2017

Invited Talks

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

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.