Samuel J. Wiseman

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Current Appointment

Assistant Professor — July 2021 – present
Duke University, Department of Computer Science

Previous Appointments

Research Assistant Professor — Sept. 2018 – July 2021
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

Siebel Scholar — 2018
Honorable Mention for Best Paper, EMNLP — 2016
Harvard Bok Center Certificate of Distinction in Teaching — Spring 2014, Spring 2016
Phi Beta Kappa, Princeton University — June 2010

Conference Publications

WikiTableT: A Large-scale Data-to-text Dataset for Generating Wikipedia Article Sections. Mingda Chen, Sam Wiseman, Kevin Gimpel. *Findings of ACL*, 2021.

Learning to Ignore: Long Document Coreference with Bounded Memory Neural Networks. Shubham Toshniwal, Sam Wiseman, Allyson Ettinger, Karen Livescu, and Kevin Gimpel. *EMNLP*, 2020.

Learning Discrete Structured Representations by Adversarially Maximizing Mutual Information. Karl Stratos and Sam Wiseman. *ICML*, 2020.

ENGINE: Energy-Based Inference Networks for Non-Autoregressive Machine Translation. Lifu Tu, Richard Yuanzhe Pang, Sam Wiseman, and Kevin Gimpel. *ACL*, 2020.

Discrete Latent Variable Representations for Low-Resource Text Classification. Shuning Jin, Sam Wiseman, Karl Stratos, and Karen Livescu. *ACL*, 2020.

Amortized Bethe Free Energy Minimization for Learning MRFs. Sam Wiseman and Yoon Kim. *NeurIPS*, 2019.

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

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

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

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

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

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

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

Sequence-to-Sequence Learning as Beam Search Optimization. Sam Wiseman and Alexander M. Rush. *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. *NAACL*, 2016.

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

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

Workshop and Preprint Papers

SummScreen: A Dataset for Abstractive Screenplay Summarization. Mingda Chen, Zewei Chu, Sam Wiseman, Kevin Gimpel. arXiv:2104.07091, April 2021.

Learning Chess Blindfolded: Evaluating Language Models on State Tracking. Shubham Toshniwal, Sam Wiseman, Karen Livescu, Kevin Gimpel. arxiv:2102.13249, February 2021.

Generating (Formulaic) Text by Splicing Together Nearest Neighbors. Sam Wiseman, Arturs Backurs, Karl Stratos. arxiv:2101.08248, January 2021.

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 (Machine Learning track): EMNLP 2021
- Area Chair (Generation track): ACL 2020, EMNLP 2020
  - EMNLP 2020 Outstanding AC
- Organizing Committee: Midwest Speech and Language Days, 2019
- EMNLP 2018 Tutorial: Deep Latent Variable Models of Natural Language
- Reviewing: TACL, ACL, NAACL, EMNLP, ICML, ICLR, NeurIPS, COLING, Computational Linguistics
  - NAACL 2018 Outstanding Reviewer
- Workshop Program Committees: CORBON at EACL 2017, CRAC at NAACL 2018, NeuralGen at NAACL 2019, DSNNLG at INLG 2019, WNGT at EMNLP 2019

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 (Rutgers U.), visiting student at TTIC — Summer 2019 - Spring 2020
- Tianyu Liu (Peking U.), visiting student at TTIC — Summer 2019 - Fall 2020
- Shira Eisenberg (UChicago), undergraduate directed research — 2018 - 2019

Thesis Committees

- At TTIC: Lifu Tu (2021), Xiaoan Ding (2021), Shubham Toshniwal (2021)

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