Dustin Wright

Postdoc at University of Copenhagen
From San Diego, CA

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I am currently a Danish Data Science Academy postdoctoral fellow. My research centers around reliable natural language processing (NLP). This includes the factuality & faithfulness, robustness, and efficiency of NLP systems. I apply my research to tasks related to fact-checking and automated science communication.

Scientific interests

- Natural Language Processing
- Machine Learning
- Fact Checking
- Reliable NLP

Education

Dec 2022. **PhD Computer Science**
University of Copenhagen

June 2019. **MSc in Computer Science**
UC San Diego

Dec 2014. **BS in Computer Engineering**
San Diego State University

Topics

Misinformation	Scholarly Text
Sustainability	Robustness
Few-Shot Learning	Bayesian Methods

Languages

English	Native
Danish	B2

Current

Feb. 2024 – **DDSA Postdoc**

University of Copenhagen & University of Michigan
2-year Danish Data Science Academy (DDSA) postdoctoral grant focused on automatic summarization and faithful science communication.

Experience

May 2024 – Oct. 2024 **Visiting Postdoc**

UMSI, University of Michigan
Worked with David Jurgens and Lu Wang on query focused summarization of long documents. One paper in preparation.

Feb. 2023 – Feb. 2024 **Postdoc**

DIKU, University of Copenhagen
Performed research at the intersection of machine learning sustainability and resource efficiency. Spotlight paper at NeurIPS 2024 and one paper accepted to Communications of the ACM.

Oct. 2019 – Dec 2022 **PhD Fellow**

DIKU, University of Copenhagen (Adv: Isabelle Augenstein)
NLP researcher for scientific fact checking and domain adaptation. Published 7 first author papers at ACL/EMNLP.

Jun. 2021 – Aug. 2021. **Research Intern**

Allen Institute for Artificial Intelligence; Remote
Published a paper at ACL on generating scientific claims for automatic scientific fact checking.

Jun. 2019 – Aug. 2019. **Research Intern**

IBM; San Jose, CA
Developed an active learning method to perform relation extraction and knowledge graph construction for biomedical text.

Oct. 2017 – Jun. 2019. **Graduate Student Researcher**

UC San Diego; San Diego, CA
Designed a light-weight method for disease name normalization which outperformed SotA. Best application paper at AKBC 2019.

Grants and Honors

Honorable mention (top 5 submission), International Conference on Computational Social Science (IC2S2) 2023

Danish Data Science Academy Postdoc Fellowship (1.2 million DKK), 2023

Grants and Honors (continued)

Marie Skłodowska-Curie PhD fellowship, 2019

Best application paper, AKBC 2019

SDSU College of Engineering Valedictorian, 2015

Public Talks

LLM Tropes: Revealing Fine-Grained Values and Opinions in Large Language Models (DIKU Bits, University of Copenhagen, November 19, 2024)

Revealing Fine-Grained Values and Opinions in Large Language Models (University of Michigan CSS Working Group, August 9, 2024)

Modeling Information Change in Science Communication with Semantically Matched Paraphrases (International Conference of Computational Social Science (IC2S2), July 20, 2023)
Honorable mention (top 5 submission)

Fighting Misinformation in Science Communication with NLP (University of Cambridge, June 2, 2023)

Automatically Ensuring Information Quality in Scientific Writing (Elsevier, March 15, 2022)

Cite-Worthiness Detection for Improved Scientific Document Understanding (ETH Zürich, March 1, 2021)

NormCo: Deep Disease Normalization for Biomedical Knowledge Base Construction (IBM Research, July 10, 2019)

Service

Program Committee EMNLP 2024

Program Committee EACL 2024

Program Committee NAACL 2024

Area Chair Empirical Methods in Natural Language Processing (EMNLP) 2023

Program Committee BioNLP Workshop (ACL) 2023

Program Committee ACL 2022

Publication Chair Conference for Truth and Trust Online 2021

Program Committee Empirical Methods in Natural Language Processing (EMNLP) 2021

Supervision

Factual Text Generation. PhD Co-advisor, UCPH, Oct 2024 onward
Zain Muhammad Mujahid

Compression Methods for Efficient Vision Transformers. Bachelor's project advisor, UCPH, Feb 2023
Olga Henrietta Ptacek

Uncertainty and Exaggerations of Scientific Findings in Social Media. Master's project advisor, UCPH, June 2022
Jimmie Jin, Asger Thorleif Knudsen, Sylvester Leonhard Gorm Errebo Lee

Stance Detection of Attitudes Toward Climate Change on Social Media Bachelor's project advisor, UCPH, June 2020
Jimmie Jin, Asger Thorleif Knudsen, Sylvester Leonhard Gorm Errebo Lee

Teaching

Teaching Assistant, Introduction to Natural Language Processing University of Copenhagen, Fall 2021

Introduction to University Pedagogy University of Copenhagen (Course), Spring 2021

Teaching Assistant, Introduction to Natural Language Processing University of Copenhagen, Fall 2020

Teaching Assistant, Web Science University of Copenhagen, Spring 2020

Teaching Assistant, Principles of AI: Probabilistic Reasoning and Decision Making UC San Diego, Fall 2017

Press

Efficiency is Not Enough: A Critical Perspective of Environmentally Sustainable AI Montreal AI Ethics Institute, December 2023

Interview on Scientific Misinformation Detection, Nvidia AI Podcast Nvidia, February 16, 2022

"Exaggeration Detector Could Lead to More Accurate Health Science Journalism" Nvidia Blog, October 1, 2021

"An NLP Approach to Exaggeration Detection in Science Journalism", unite.ai, September 15, 2021

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Publications

Google Scholar: https://scholar.google.com/citations?user=OGk5UnYAAAAJ&hl=en
Publications: 24; Citations: 478; h-index: 13; i10-index: 15

Papers in Conference Proceedings

Wright, D., Igel, C., & Selvan, R. (2024). BMRS: Bayesian Model Reduction for Structured Pruning. In *Neural Information Processing Systems (NeurIPS) 2024 (Spotlight)*. Neural Information Processing Systems Foundation

Wright, D.*, Arora, A.*, Borenstein, N., Yadav, S., Belongie, S., & Augenstein, I. (2024). LLM Tropes: Revealing Fine-Grained Values and Opinions in Large Language Models. In *EMNLP 2024 (Findings)*. Association for Computational Linguistics.

* denotes equal contribution

Wuhrl, A., **Wright, D.**, Klinger, R., & Augenstein, I. (2024). Understanding Fine-grained Distortions in Reports of Scientific Findings. In *ACL 2024 (Findings)*. Association for Computational Linguistics.

Wright, D.*, Pei, J.*, Jurgens, D., & Augenstein, I. (2022). Modeling Information Change in Science Communication with Semantically Matched Paraphrases. In *EMNLP 2022*. Association for Computational Linguistics.

* denotes equal contribution

Wright, D., Wadden, D., Lo, K., Kuehl, B., Cohan, A., Augenstein, I., & Wang, L. L. (2022). Generating Scientific Claims for Zero-Shot Scientific Fact Checking. In *ACL 2022*. Association for Computational Linguistics.

Wright, D., & Augenstein, I. (2021). Semi-Supervised Exaggeration Detection of Health Science Press Releases. In *EMNLP 2021*. Association for Computational Linguistics.

Wright, D., & Augenstein, I. (2021). CiteWorth: Cite-Worthiness Detection for Improved Scientific Document Understanding. In *ACL 2021 (Findings)*. Association for Computational Linguistics.

Lima, L. C., **Wright, D.**, Augenstein, I., & Maistro, M. (2020). University of Copenhagen Participation in TREC Health Misinformation Track 2020. In *TREC*.

Wright, D., & Augenstein, I. (2020). Transformer based multi-source domain adaptation. In *EMNLP 2020*. Association for Computational Linguistics.

Atanasova, P.*, **Wright, D.***, & Augenstein, I. (2020). Generating label cohesive and well-formed adversarial claims. In *EMNLP 2020*. Association for Computational Linguistics.

* denotes equal contribution

Wright, D., & Augenstein, I. (2020). Claim check-worthiness detection as positive unlabelled learning. In *EMNLP 2020 (Findings)*. Association for Computational Linguistics.

Wright, D., Katsis, Y., Mehta, R., & Hsu, C. (2019). Normco: Deep disease normalization for biomedical knowledge base construction. In *AKBC 2019*.
Best Application Paper

Wright, D., Yan, X., Srinivas, P., Kashani, A., & Ozturk, Y. (2015). A cloud to mobile application for consumer behavior modification. *Procedia Computer Science*, 62, 343-351.

Yan, X., **Wright, D.**, Kumar, S., Lee, G., & Ozturk, Y. (2015). Real-time residential time-of-use pricing: a closed-loop consumers feedback approach. In *Green Technologies Conference (GreenTech), 2015 Seventh Annual IEEE* (pp. 132-138). IEEE.

Massai, S., Routhu, S., **Wright, D.**, Moon, K. S., Ozturk, Y., & Lee, S. Q. (2015). A Wireless Visual Attention Brain Signal Monitoring System. In *MATEC Web of Conferences* (Vol. 32, p. 04005). EDP Sciences.

Papers in Workshop Proceedings

Holm, A., Plank, B., **Wright, D.**, & Augenstein, I. (2022). Longitudinal citation prediction using temporal graph neural networks. In Proceesings of the AAAI 2022 Workshop on Scientific Document Understanding (SDU 2022).

Koh, E.S., Dubnov, S., & **Wright, D.** (2018). Rethinking recurrent latent variable model for music composition. *IEEE 20th International Workshop on Multimedia Signal Processing (MMSP)*, IEEE.

Yan, X., **Wright, D.**, Kumar, S., Lee, G., & Ozturk, Y. (2015). Enabling consumer behavior modification through real time energy pricing. In *Pervasive Computing and Communication Workshops (PerCom Workshops), 2015 IEEE International Conference on* (pp. 311-316). IEEE.

Papers in Journals

Wright, D., Igel, C., Samuel, G., & Selvan, R. (2024). Efficiency is Not Enough: A Critical Perspective of Environmentally Sustainable AI. To appear in *Communications of the ACM*. Association for Computing Machinery.

Holm, A. N., **Wright, D.**, & Augenstein, I. (2023). Revisiting Softmax for Uncertainty Approximation in Text Classification. Information, 14(7), 420.

Badal, V. D., **Wright, D.**, Katsis, Y., Kim, H. C., Swafford, A. D., Knight, R., & Hsu, C. N. (2019). Challenges in the construction of knowledge bases for human microbiome-disease associations. Microbiome, 7(1), 1-15.

Bhide, A., **Wright, D.**, & Ozturk, Y. (2016). Per-packet rate adaptation for wireless video. *Signal, Image and Video Processing*, 10(7), 1273-1278.

Preprints

Ivey, J.*, Kumar, S., Liu, J., Shen, H., Rakshit, S., Raju, R., Zhang, H., Ananthasubramaniam, A., Kim, J., Yi, B., **Wright, D.**, Israeli, A., Moeller, A., Zhang, L., & Jurgens, D. (2024). Real or Robotic? Assessing Whether LLMs Accurately Simulate Qualities of Human Responses in Dialogue. arXiv preprint arXiv:2409.08330.

* author order random

Wright, D., & Augenstein, I. (2022). Multi-View Knowledge Distillation from Crowd Annotations for Out-of-Domain Generalization. arXiv preprint arXiv:2212.09409.