Denis R Newman-Griffis

Curriculum Vitae

The Ohio State University
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Natural Language Processing, Disability and Occupational Health,
Computational Semantics, Biomedical Informatics, Machine Learning

Publications

2019 Brendan Whitaker*, **Denis Newman-Griffis***, Aparajita Haldar*, Hakan Ferhatos-manoglu, and Eric Fosler-Lussier. Characterizing the impact of geometric properties of word embeddings on task performance. In *Proceedings of the Third Workshop on Evaluating Vector Space Representations for NLP*, 2019. (*=equal contributor)

2018 **Denis Newman-Griffis** and Ayah Zirikly. Embedding Transfer for Low-Resources Medical Named Entity Recognition: A Case Study on Patient Mobility. In *Proceedings of BioNLP*, 2018.

2018 **Denis Newman-Griffis**, Albert M Lai, and Eric Fosler-Lussier. Jointly Embedding Entities and Text with Distant Supervision. In *Proceedings of the 3rd Workshop on Representation Learning for NLP (Repl4NLP)*, 2018.

2017 Thanh Thieu, Jonathan Camacho, Pei-Shu Ho, Julia Porcino, Min Ding, Lisa Nelson, Elizabeth Rasch, Chunxiao Zhou, Leighton Chan, Diane Brandt, **Denis Newman-Griffis**, Ao Yuan, and Albert M Lai. Inductive identification of functional status information and establishing a gold standard corpus: A case study on the Mobility domain. In *2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, 2017.

2017 **Denis Newman-Griffis**, Albert M Lai, and Eric Fosler-Lussier. Insights into Analogy Completion from the Biomedical Domain. In *Proceedings of the 16th Workshop on Biomedical Natural Language Processing (BioNLP)*, 2017.

2017 **Denis Newman-Griffis** and Eric Fosler-Lussier. Second-Order Word Embeddings from Nearest Neighbor Topological Features. Pre-print: *arXiv:1705.08488*, 2017.

2016 **Denis R Griffis**, Chaitanya Shivade, Eric Fosler-Lussier, and Albert M Lai. A Quantitative and Qualitative Evaluation of Sentence Boundary Detection for the Clinical Domain. In *Proceedings of the AMIA Summit on Clinical Research Informatics (AMIA-CRI)*, 2016.

Posters and Presentations

2018 **Denis Newman-Griffis**. Natural language processing approaches to extracting patient functioning from clinical data. Invited talk at Stanford University, Center for Population Health Sciences, March 2018.

2018 **Denis Newman-Griffis**, Albert M Lai, and Eric Fosler-Lussier. Jointly embedding biomedical entities and text with distant supervision. Poster presentation, in *Proceedings of the AMIA Informatics Summit*, 2018.

2017 **Denis Newman-Griffis**, Thanh Thieu, Chunxiao Zhou, Diane Brandt, Jonathan Camacho Maldonado, Julia Porcino, Albert M Lai, and Leighton Chan. Characterizing the language of functioning: A corpus analysis illustrating how human function is described in clinical text. Poster presentation, in *Proceedings of the AMIA Summit on Clinical Research Informatics (AMIA-CRI)*, 2017.

Education

2014– **PhD student**, *The Ohio State University, Department of Computer Science and Engineering*, Columbus, OH, USA.
Modeling and extracting information regarding patient function from clinical text.
Co-advised by Dr. Eric Fosler-Lussier and Dr. Albert Lai (now of Washington University in St. Louis)

2008–2012 **Bachelor of Arts**, *Carleton College*, City, *Magna cum laude*.
Majors: Computer Science & Russian
○ Senior thesis (Computer Science) titled "PIG: Packet Inspection Guru."
○ Senior thesis (Russian): translation of Georgiy Demidov's short story, "No Toe Tag," published in the short story collection, "Five Fates from a Wondrous Planet" (2015).

Teaching/Mentoring

2018–2019 Advising Brendan Whitaker, OSU Mathematics; Research project on properties of language representations that contribute to downstream tasks.
○ Brendan awarded 3rd place presenter in Statistical and Mathematical Modeling section of 2019 Ohio State Denman Undergraduate Research Forum.
○ Resulted in co-first author paper accepted to RepEval 2019.

Autumn 2017 CSE 3521 - Survey of Artificial Intelligence I: Basic Techniques
Dept. of Computer Science and Engineering, The Ohio State University

Fellowships

2015– **Pre-Doctoral Fellow**, *National Institutes of Health, Clinical Center*.

Professional Experience

2012–2014 **Software Developer**, *Fulcrum Software Solutions*, Dublin, OH, USA.
Designed, developed, and deployed applications in the business and healthcare sectors, using the .NET development stack.
○ Acted as client contact for design and troubleshooting on multiple projects.

Service

Departmental Service

2015–2018 **AI Seminar Coordinator**, *The Ohio State University*, Columbus, OH, USA.
Coordinated bi-weekly seminar series for student presentations on ongoing AI research at Ohio State.

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Reviewer

2019	AMIA Informatics, AMIA Annual Summit, NAACL Student Research Workshop
2018	ACL, AMIA Informatics, AMIA Annual Summit, COLING, ACL Student Research Workshop
2017	ACL, AMIA Annual Summit, EMNLP
2016	ACL, AMIA Annual Summit

Other

2014–	**Volunteer Judge**, *Ohio State Science Day*.
	Judged science fair projects of students grades 5–12.
2016–2017	**President**, *Columbus Symphony Chorus*, Columbus, OH, USA.

Affiliations

ACL	Association for Computational Linguistics
ACM	Association for Computing Machinery
AMIA	American Medical Informatics Association
ASEE	American Society for Engineering Education