

# Denis R Newman-Griffis

## Curriculum Vitae

The Ohio State University

DL 395, 2015 Neil Ave

Columbus, OH, USA

+1 (614) 636 3740

✉ [denis.newman.griffis@gmail.com](mailto:denis.newman.griffis@gmail.com)

📄 [drgriffis.github.io](https://github.com/drgriffis)

Natural Language Processing, Disability and Occupational Health,  
Computational Semantics, Biomedical Informatics, Machine Learning

## Publications

\*=equal contributor

- 2019 **Denis Newman-Griffis\***, Ayah Zirikly\*, Guy Divita\*, and Bart Desmet. Classifying the reported ability in clinical mobility descriptions. In *Proceedings of BioNLP 2019*, 2019.
- 2019 Brendan Whitaker\*, **Denis Newman-Griffis\***, Aparajita Haldar\*, Hakan Ferhatosmanoglu, 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.
- 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](https://arxiv.org/abs/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.

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## 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).

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## 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*

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## Fellowships

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

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## 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.

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## 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.

### Reviewer

- 2019 ACL, AMIA Informatics, AMIA Annual Summit, NAACL Student Research Workshop, BioNLP
- 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.

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### Affiliations

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