Adam N. Goodkind

Contact Department of Linguistics a.goodkind@u.northwestern.edu Information Northwestern University adamgoodkind.com 2016 Sheridan Rd, Evanston, IL 60208 USA **EDUCATION** PhD, Northwestern University Media, Technology & Society Program 2019-Present Linguistics Department 2016-2019 Honors: Data Science Fellowship Cognitive Science Specialist M.A., CUNY Graduate Center 2016 **Computational Linguistics** M.A. Thesis: Utilizing Linguistic Context To Improve Identification in Typed Text Thesis Advisors: Prof. Andrew Rosenberg and Prof. Martin Chodorow B.A., Columbia University 2007 Religion (Study of Science & Religion) 2017-Present Research Assistant, LangComp Lab, Evanston, IL, USA Research EXPERIENCE PI: Klinton Bicknell Researching autism diagnoses using linguistic markers, such as semantic similarity (word vectors) and pragmatic deficiencies. Also researching how linguistic predictability affects sentence processing via eye-tracking. Research Assistant, CUNY Speech Lab, New York, NY, USA 2012-2016 PI: Andrew Rosenberg Research Assistant, Columbia NLP Group, New York, NY, USA 2006-2007 PI: Rebecca Passonneau Honors and Best Paper Award, Cognitive Modeling & Computational Linguistics (CMCL) 2018 Developmental Sciences Cluster Fellowship - Finalist, Northwestern University Awards 2018 Data Science Fellowship, Northwestern University 2016-2017 USS Donald and Mary Ellen Passantino Scholarship, CUNY Graduate Center 2015 Google Lime Connect Scholarship-Finalist 2014 Thomas W. Smith Academic Fellowship, CUNY Graduate Center 2013-2014 National Science Foundation, Undergraduate Research Grant, Columbia University 2007 Albert A. List Academic Fellowship 2003-2007 King's Crown Award for Outstanding Leadership, Columbia University 2006

Publications

2018 **Goodkind, A.**, Lee, M., Martin, G. E., Losh, M., & Bicknell, K. Detecting language impairments in autism: A computational analysis of semi-structured conversations with vector semantics. In *Proceedings of the Inaugural Meeting of the Society for Computation in Linguistics*. Salt Lake City, UT: Linguistic Society of America. [paper] [slides]

Goodkind, A. & Bicknell, K. Predictive power of word surprisal for reading times is a linear function of language model quality. In *Proceedings of the 8th Workshop on Cognitive Modeling and Computational Linguistics (CMCL 2018)*. Salt Lake City, UT: Linguistic Society of America. [paper] [slides]

- 2016 Goodkind, A., Brizan D.G. & Rosenberg, A. Utilizing Overt and Latent Linguistic Structure to Improve Keystroke-Based Authentication. Image and Vision Computing: Best of Biometrics Special Issue.
- 2015 Goodkind, A., Brizan D.G. & Rosenberg, A. Improvements to Keystroke-Based Authentication By Adding Linguistic Context. 7th IEEE Conference on Biometrics: Theory, Applications and Systems (BTAS 2015). (Slides)
 - Goodkind, A. & Rosenberg, A. Muddying The Multiword Expression Waters: How Cognitive Demand Affects Multiword Expression Production. 11th Workshop on Multiword Expressions at NAACL-HLT 2015. (Slides)
 - Brizan, D. G., **Goodkind, A.**, Koch, P., Balagani, K., Phoha, V. V., & Rosenberg, A. *Utilizing Linguistically-Enhanced Keystroke Dynamics to Predict Typist Cognition and Demographics.*International Journal of Human-Computer Studies, October 2015, vol. 84, 57-68.
- 2014 Locklear, H., Govindarajan, S., Sitova, Z., Goodkind, A., Brizan, D., Rosenberg, A., Phoha, V., Gasti, P., & Balagani, K. Continuous Authentication with Cognition-centric Text Production and Revision Features. Biometrics (IJCB), 2014 IEEE International Joint Conference.
- 2013 Serwadda, A., Balagani, K., Wang, Z., Koch, P., Govindarajan, S., Pokala, R., Goodkind, A., Brizan, D.G., Rosenberg, A., & Phoha, V. Scan-based Evaluation of Continuous Keystroke Authentication Systems. IT Professional, 15(4), 20-23.
- 2008 Goodkind, A. Tracking the Emergence of Narrative Competence in Story Retelling. Quebec Student Journal of Linguistics, Vol. 3.
- 2007 Passonneau, R. J., Goodkind, A., & Levy, E. T. Annotation of Children's Oral Narrations: Modeling Emergent Narrative Skills for Computational Applications. Florida Artificial Intelligence Research Society (FLAIRS), 253-258.
- 2006 Passonneau, R., McKeown, K., Sigelman, S., & Goodkind, A.. Applying the Pyramid Method in the 2006 Document Understanding Conference. Proceedings of the 2006 Workshop of the Document Understanding Conference (DUC).

Presentations

- 2018 Lee, M.A., Martin, G.E., Goodkind, A., Bicknell, K., Maltman, N., Bush, L., Losh, M. A Multi-Method Approach to Characterizing Pragmatic Language Development in Individuals with FXS. Paper presented at the International Fragile X Conference, Cincinnati, OH, July, 2018
 - Goodkind, A.. Complex Data Visualization: Visualizing language production dynamics via keystroke analysis. Presentation at Inaugural Data Science Research Day, Northwestern University Institute on Complex Systems, 25 June 2018. (Slides)
 - Goodkind, A.. Demo of TypeShift software system for tracking keystroke dynamics at Individual Differences Workshop, Northwestern University, 30 May 2018. (Code)
 - Lee, M.A., Martin, G.E., **Goodkind, A.**, Bicknell, K., Maltman, N., Bush, L., Losh, M. *A longitudinal, multi-method analysis of pragmatic language in ASD and related developmental disabilities.* Poster presented at the International Society for Autism Research, May, 2018, Rotterdam, Netherlands
 - Goodkind, A. & Bicknell, K.. Low-level language statistics affect reading times independently of surprisal. Poster presentation at the 31st annual CUNY Conference on Human Sentence Processing, UC Davis, Davis, California, 1517 March 2018.
- 2015 Goldman, N. & Goodkind, A.. Worth 1,⊕⊕⊕ Words: The Linguistics of Emoji and Emoji of Linguistics. SQUID X: 10th Annual Conference Showcasing Quirky and Original Ideas in Development. New York, NY April 24, 2015. (Slides)
- 2014 Goodkind, A.. Detecting Multi-word Expressions Through Typing Patterns. 15th Texas Linguistics Society Conference, Austin ,TX, October 24-26, 2014 (Slides)
 - Goodkind, A.. Detecting Multi-word Expressions in Computer Keyboard Produced Text. CUNY Research Day, New York, NY

2008-2011

Teaching EXPERIENCE

Teaching Assistant

Northwestern University

- Linguistics 220: Language & Society (Prof. Annette D'Onofrio), 2018
 - Guest lecture on quantitative data analysis
- Cognitive Science 210: Language & the Brain (Profs. Matt Goldrick & Mark Beeman), 2019
- Linguistics 221: Language & Prejudice (Prof. Erin Leddon), 2019

Non-Academic EMPLOYMENT

Language Engineering Intern, Transcendent Endeavors, NY, NY, USA **Summer 2016** Software Developer in Test Intern, Microsoft, Redmond, WA, USA **Summer 2013** Operations Analyst, Goldman Sachs, USA

Departmental SERVICE

Co-organizer, Northwestern Text Analytics Working Group 2018-Present 2017 - 2018Founder, Northwestern NLP Group Founder, Linguistics Deep Learning Reading Group 2017-Present Web & Social Media Coordinator, Linguistics 2017-PresentColloquium Reception Committee, Linguistics 2016-2017

Professional ACTIVITIES

North American Computational Linguistics Olympiad (NACLO), Volunteer, 2019

Diversity & Inclusivity Committee, NAACL 2019, Committee Member

DevSci Cluster, Northwestern University, Member

Institute of Electrical and Electronics Engineers (IEEE), Member

Linguistic Society of America (LSA), Member

Association for Computational Linguistics (ACL), Member Financial Industry Regulatory Authority (FINRA), Member

LANGUAGES

Computer—Java, Python, R (ggplot2, plotly, lme4), C++, VBA, C#, LATEX, MATLAB/Octave **Human**—American Sign Language (ASL), Hebrew, Latin

References

Klinton Bicknell, Research Scientist, Duolingo

(Original PhD advisor at Northwestern)

email: klinton@duolingo.com

Andrew Rosenberg, Research Scientist, Google

(MA advisor at CUNY Graduate Center)

email: rosenberg@google.com