Adam N. Goodkind

Contact Information

Department of Linguistics
Northwestern University
2016 Sheridan Rd, Evanston, IL 60208 USA

a.goodkind@u.northwestern.edu
http://sites.northwestern.edu/adam/

Research Interests

Information Theory (IT) in linguistics, especially as it relates to understanding language production and cognition. Recent work has studied autism as well as computer typing production (keystroke dynamics). Findings have relied on Natural Language Processing, machine learning and statistical modeling.

Education

Ph.D., Linguistics, Northwestern University, Evanston, IL, USA **2016–Present**

Data Science Fellowship

M.A., Computational Linguistics, CUNY Graduate Center, New York, NY, USA **2016**

M.A. Thesis: Utilizing Linguistic Context To Improve Identification in Typed Text
Thesis Advisors: Prof. Andrew Rosenberg and Prof. Martin Chodorow

B.A., Religion: Science & Religion, Columbia University, New York, NY, USA **2007**

Research Experience

Research Assistant, LangComp Lab, Evanston, IL, USA **2017–Present**
PI: Klinton Bicknell

- Researching autism diagnoses using linguistic markers, such as semantic similarity (word vectors) and pragmatic deficiencies.

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

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 **2008–2011**

Publications

Accepted **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.

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

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

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

Honors and Awards

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**

Departmental Service

Founder, Linguistics Deep Learning Reading Group **2017–Present**
Web & Social Media Coordinator, Linguistics **2017–Present**
Colloquium Reception Committee, Linguistics **2016–2017**

Professional Memberships

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