

Kenneth Tyler Wilcox

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Education

University of Notre Dame, Notre Dame, IN

Ph.D. Quantitative Psychology 2022 (expected)

Rochester Institute of Technology, Rochester, NY

M.S. Applied Statistics 2017

Thesis: Bayesian hidden topic Markov models

B.S. Psychology 2013

Grants and Awards

University of Notre Dame 2020

Graduate Student Union Outstanding Teaching Assistant Award (\$300)

Society of Multivariate and Experimental Psychology 2019

Travel Assistance Award (\$1,500)

University of Notre Dame 2017–present

University Presidential Fellowship

Upstate Chapters of the American Statistical Association 2016

Honorable Mention for Oral Presentation Based on Methodology and Theory

Rochester Institute of Technology Center for Quality and Applied Statistics 2015

John D. and Rachel E. Hromi Endowed Scholarship

Association for Psychological Science Student Caucus 2014

Travel Assistance Award (\$200)

Rochester Institute of Technology College of Liberal Arts

Outstanding Undergraduate Scholarship Award 2013

Student Research Fund (\$72) 2013

Kearse Award for Excellence in Writing (\$100) 2012

Teaching Experience

University of Notre Dame

Teaching Assistant & Lab Instructor, Department of Psychology 08/2019–

Courses: Quantitative Methods I (graduate course), Quantitative Methods II (graduate course)

Rochester Institute of Technology

Teaching Assistant, School of Mathematical Sciences 09/2015–05/2017

Courses: Elements of Statistical Theory (graduate course), Principles of Statistical Data Mining (graduate course)

Tutor, Academic Support Center 09/2010–05/2013, 10/2014–05/2017

Courses: Calculus, Multivariate Calculus, Linear Algebra, Differential Equations, University Physics, Probability, Statistics, Regression Analysis, Design of Experiments, Stochastic Processes

Teaching Assistant, Center for Quality and Applied Statistics 01/2015–12/2015

Courses: Statistical Software (graduate course), Probability and Statistics II for Engineers

Instructor, Academic Support Center 10/2014–12/2015

Course: Critical Mathematical Skills

Tutor, Arthur O. Eve Higher Education Opportunity Program 07/2012–08/2012

Courses: Pre-Calculus, Algebra

Research Experience

Rochester Institute of Technology, Rochester, NY

Statistician, Department of Service Systems 05/2017–07/2017

Research collaborators: Malarvizhi Hirudayaraj, Martin Anselm

Research Assistant, Department of Psychology 03/2012–05/2013

Research adviser: Caroline M. DeLong

Research Assistant, Department of Psychology 11/2011–05/2013

Research adviser: John Edlund

SUNY Upstate Medical University, Syracuse, NY

Research Analyst, Department of Psychiatry and Behavioral Sciences 06/2013–08/2013

Research adviser: John Manring

Research Intern, Department of Neurosurgery 07/2011–09/2011

Research advisers: John Manring, Satish Krishnamurthy

Employment

Soleo Communications, Data Scientist

2016

Publications

JOURNAL ARTICLES

- Jacobucci, R., Ammerman, B. A., & **Wilcox, K. T.** (in press). The use of text-based responses to improve our understanding and prediction of suicide risk. *Suicide and Life-Threatening Behavior*.
- DeLong, C. M., Fellner, W., **Wilcox, K. T.**, Odell, K., & Harley, H. E. (2020). Visual perception in bottlenose dolphins (*Tursiops truncatus*): Successful recognition of 2-D objects rotated in the picture and depth planes. *Journal of Comparative Psychology*, 134(2), 180–196. <https://doi.org/10.1037/com0000207>
- Wilcox, K. T.**, Jacobucci, R., & Zhang, Z. (2020). Bayesian supervised topic modeling with covariates. *Multivariate Behavioral Research*, 55(1), 141 (Abstract). <https://doi.org/10.1080/00273171.2019.1695568>
- DeLong, C. M., Wright, C., Fobe, I., **Wilcox, K. T.**, & Morrison, E. (2019). North American river otters (*Lontra canadensis*) discriminate between 2D objects varying in shape and color. *Learning & Behavior*, 47, 91–104. <https://doi.org/10.3758/s13420-018-0346-x>
- DeLong, C. M., Fobe, I., O'Leary, T., & **Wilcox, K. T.** (2018). Visual perception of planar-rotated 2D objects in goldfish (*Carassius auratus*). *Behavioural Processes*, 157, 263–278. <https://doi.org/10.1016/j.beproc.2018.10.009>
- DeLong, C. M., Keller, A. M., **Wilcox, K. T.**, Fobe, I., & Keenan, S. A. (2018). Visual discrimination of geometric and complex 2D shapes in goldfish (*Carassius auratus*). *Animal Behavior and Cognition*, 5(3), 300–319. <https://doi.org/10.26451/abc.05.03.05.2018>
- DeLong, C. M., Barbato, S., O'Leary, T., & **Wilcox, K. T.** (2017). Small and large number discrimination in goldfish (*Carassius auratus*) with extensive training. *Behavioural Processes*, 141(P2), 172–183. <https://doi.org/10.1016/j.beproc.2016.11.011>
- Edlund, J.E., Nichols, A. L., Okdie, B. M., Guadagno, R. E., Eno, C. A., Heider, J. D., Hansen, E., Sagarin, B. J., Blackhart, G., Cottrell, C. A., & **Wilcox, K. T.** (2014). The prevalence and prevention of crosstalk: A multi-institutional study. *The Journal of Social Psychology*, 154(3), 181–185. <https://doi.org/10.1080/00224545.2013.872596>

CONFERENCE PROCEEDINGS

- Fobe, I., DeLong, C. M., & **Wilcox, K. T.** (2017). An exploration of rhythm perception in African penguins (*Spheniscus demersus*). *Proceedings of Meetings on Acoustics*, 31(1). <https://doi.org/10.1121/2.0000773>

MANUSCRIPTS UNDER REVIEW

- Ammerman, B. A., **Wilcox, K. T.**, O'Loughlin, C. M., & McCloskey, M. S. (Under review). Characterizing the choice to disclose nonsuicidal self-injury. *Journal of Clinical Psychology*.
- Morrison, E. K., DeLong, C. M., & **Wilcox, K. T.** (Under review). Humans discriminate among bottlenose dolphin signature whistles masked by noise: Investigating perceptual strategies for anthropogenic noise pollution. *Journal of the Acoustical Society of America*.

MANUSCRIPTS IN PREPARATION

- Che, C., **Wilcox, K. T.**, & Zhang, Z. Evaluation of the unsupervised latent Dirichlet allocation model through simulation. Manuscript in preparation.
- Hong, M., & **Wilcox, K. T.**. A joint modeling framework for item response and topic models. Manuscript in preparation.
- Wilcox, K. T.**, Jacobucci, R., McCloskey, M. A., & Ammerman, B. A. A topic mining approach to characterizing interpersonal stress among nonsuicidal self-injury. Manuscript in preparation.
- Wilcox, K. T.**, Jacobucci, R., & Zhang, Z. Supervised latent Dirichlet allocation with covariates: A Bayesian joint regression model of text and covariates. Manuscript in preparation.
- Wilcox, K. T.** & Wang, L. Modeling approaches for integrative data analysis: Evaluations and recommendations. Manuscript in preparation.

Software Development

- Wilcox, K. T.** (2020). *psychtm: Text mining for psychological research* (Version 2020.3) [Computer software]. <https://github.com/ktw5691/psychtm/>

Presentations

PEER-REVIEWED CONFERENCE PRESENTATIONS

- Hong, M., **Wilcox, K. T.**, & Cheng, Y. (2020, July 13–17). *A joint modeling framework for item response and topic models* [Paper presentation]. 85th Annual Meeting of the Psychometric Society, College Park, MD, United States.
- Wilcox, K. T.**, Jacobucci, R., & Zhang, Z. (2020, July 13–17). *Combining topic modeling and regression: Supervised topic modeling with covariates* ["Spotlight Talk" paper presentation]. 85th Annual Meeting of the Psychometric Society, College Park, MD, United States.
- Che, C., **Wilcox, K. T.**, & Zhang, Z. (2020, May 26–27). *Evaluation of the unsupervised latent Dirichlet allocation model through simulation* [Paper presentation]. 2nd Annual Meeting of the International Society for Data Science and Analytics, Notre Dame, IN, United States.

- Wilcox, K. T.**, Jacobucci, R., & Zhang, Z. (2020, May 26–27). *Modeling relationships from themes in text and covariates with an outcome: A Bayesian supervised topic model with covariates* [Paper presentation]. 2nd Annual Meeting of the International Society for Data Science and Analytics, Notre Dame, IN, United States.
- DeLong, C. M., Morrison, E., Wegman, J., Morelli, J., Rachfal, T., & **Wilcox, K. T.** (2020, April 1–4). *Visual object categorization in goldfish (Carassius auratus)* [Poster presentation]. 27th Annual International Conference on Comparative Cognition, Melbourne, FL, United States. (Conference canceled)
- Ammerman, B. A., **Wilcox, K. T.**, & Jacobucci, R. (2019, November 21–24). A nuanced examination of the relationship between social connectedness and suicidal ideation. In B. A. Ammerman & R. Jacobucci (Chairs), *Utilizing text mining in clinical research: Novel applications for improving the prediction of psychological distress* [Symposium]. 53rd Annual Convention of the Association for Behavioral and Cognitive Therapies, Atlanta, GA, United States.
- Wilcox, K. T.**, Jacobucci, R., McCloskey, M. S., & Ammerman, B. A. (2019, November 21–24). Evaluating personal narratives of interpersonal relationships via text mining to predict nonsuicidal self-injury. In B. A. Ammerman & R. Jacobucci (Chairs), *Utilizing text mining in clinical research: Novel applications for improving the prediction of psychological distress* [Symposium]. 53rd Annual Convention of the Association for Behavioral and Cognitive Therapies, Atlanta, GA, United States.
- Wilcox, K. T.** (2019, October 9–12). *Bayesian supervised topic modeling with covariates* [Poster presentation]. 17th Annual Society of Multivariate Experimental Psychology Graduate Student Conference, Baltimore, MD, United States.
- DeLong, C. M., Morrison, E., Wegman, J., Rachfal, T., & **Wilcox, K. T.** (2019, April 10–13). *Visual perception of rotated 2D color representations of familiar 3D objects in goldfish (Carassius auratus)* [Paper presentation]. 26th Annual International Conference on Comparative Cognition, Melbourne Beach, FL, United States.
- Wilcox, K. T.** (2018, July 9–13). *A Bayesian hidden topic Markov model for latent linguistic structure* [Paper presentation]. 83rd Annual Meeting of the Psychometric Society, New York City, NY, United States.
- DeLong, C. M., Gardner, K., Rachfal, H., Morrison, E., & **Wilcox, K. T.** (2018, April 4–7). *Visual discrimination of rotated 3D objects in goldfish (Carassius auratus)* [Paper presentation]. 25th Annual International Conference on Comparative Cognition, Melbourne Beach, FL, United States.
- Morrison, E., DeLong, C. M., Wright, C., Gardner, K., Rachfal, H., Gamble, M., **Wilcox, K. T.**, Frye, D., Thorner, H., Fobe, I., & Dami, J. (2018, April 4–7). *North American river otters (Lontra canadensis) use shape and color to discriminate between 2D objects* [Poster presentation]. 25th Annual International Conference on Comparative Cognition, Melbourne Beach, FL, United States.
- Fobe, I., DeLong, C. M., & **Wilcox, K. T.** (2017, December 4–8). *An exploration of rhythm*

- perception in African penguins (Spheniscus demersus)* [Paper presentation]. 174th Meeting of the Acoustical Society of America, New Orleans, LA, United States.
- DeLong, C. M., Fellner, W., Harley, H. E., Fobe, I., **Wilcox, K. T.**, Gardner, K., & Odell, K. (2017, November 9). *Visual discrimination of rotated 2D objects in a bottlenose dolphin (Tursiops truncatus) and goldfish (Carassius auratus)* [Paper presentation]. Fall Meeting of the Comparative Cognition Society 2017, Vancouver, BC, Canada.
- Wilcox, K. T.** (2017, April). *Text mining with a Bayesian hidden topic Markov model* [Paper presentation]. 6th Annual Joint Conference of the Upstate Chapters of the American Statistical Association, Buffalo, NY, United States.
- DeLong, C. M., Fobe, I., **Wilcox, K. T.**, & O'Leary, T. (2017, April 19–22). *Visual discrimination of rotated 2D objects in goldfish (Carassius auratus)* [Paper presentation]. 24th Annual International Conference on Comparative Cognition, Melbourne Beach, FL, United States.
- Wilcox, K. T.** (2016, April). *An introduction to ensemble methods for machine learning* [Paper presentation]. 5th Annual Joint Conference of the Upstate Chapters of the American Statistical Association, Buffalo, NY, United States.
- Wilcox, K. T.**, & DeLong, C. M. (2014, May 22–25). *Mindfulness meditation and relaxation differentially improve mindfulness and affect, not emotional memory* [Poster presentation]. 26th Association for Psychological Science Annual Convention, San Francisco, CA, United States.
- Nichols, A. L., Edlund, J. E., Okdie, B. M., Guadagno, R. E., Eno, C. A., Heider, J. D., Hansen, E., Sagarin, B. J., Blackhart, G., Cottrell, C. A., & **Wilcox, K. T.** (2013, November). *Predicting and preventing participant crosstalk: A multi-institutional investigation* [Paper presentation]. 2nd International Conference on Emerging Research Paradigms in Business and Social Sciences, Dubai, United Arab Emirates.
- Wilcox, K. T.**, Wright, C., & DeLong, C. M. (2012, August 10). *Training North American river otters (Lontra canadensis) to discriminate among objects* [Poster presentation]. 21st Annual Rochester Institute of Technology Undergraduate Research Symposium, Rochester, NY, United States.

Institute Service

University of Notre Dame

Department of Psychology

08/2018–07/2019

Quantitative Area Representative, Graduate Advisory Committee

Rochester Institute of Technology

Department of Applied Statistics

01/2015–05/2017

Secretary, Data Science Research Group

Summer Mathematics Institute (Rochester, NY)

06/2016

Discussant, "On the Five Pillars of Statistical Science: Methodology, Theory, Computation, Applications and Data"

Psychology Department 03/2012–05/2013

Secretary, Psychology Student Society

College of Liberal Arts 09/2012–05/2013

Student Representative, Eisenhart Nomination Committee

First Year Enrichment Program 09/2010–05/2013

Peer Mentor

Professional Associations

American Psychological Association

American Psychological Association Division 5

American Statistical Association

Association for Psychological Science

Psychometric Society

Professional Activities

Ad Hoc Reviewer

Multivariate Behavioral Research 2020

Association for Psychological Science

Association for Psychological Science Student Caucus 2016–2019

Reviewer, APSSC Student Grant Competition

Upstate Chapters of the American Statistical Association

Sixth Annual Joint Conference (Buffalo, NY) 04/2017

Session chair, "Applications of Statistics in Environmental Studies"

Judge, 2017 Pre-College Statistical Data Analysis Competition

Fifth Annual Joint Conference (Buffalo, NY) 04/2016

Judge, 2016 Pre-College Statistical Data Analysis Competition