# MICHAEL GEDEN

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Website: www.michaelgeden.com Github: www.github.com/mageden

**Recent Work** Experience

## Laboratory of Analytical Sciences NC State: Interdisciplinary

- Developing a novel construct and measurement for anticipatory thinking.
- Created survey with convergent and divergent validity constructs to test hypothesised model using structural equation modeling (SEM).

Applied Cognitive Psychology Lab NC State: Department of Psychology

- Managing a team of research assistants (4-7) in running studies, gathering data, and coding qualitative responses.
- Identifying information processing and encoding failures during reading while mind wandering.
- Assessing impact of mind wandering on driving using autoregressive, additive, and logistic mixed effects models
- Predicting mind wandering during driving using machine learning (mixed models, random forests, SVM).
- Investigating the impact of sleep on daily fluctuations of attention and fatigue.

Canine Orthopedic Brace Design NC State: Interdiscplinary

- Designed canine brace with multi-disciplinary team
- Conducted user interviews and surveys on design

SAS Internship

- Heuristically evaluated technical documentation usability.
- Redesigned information architecture.
- Assessed usability of designs using A/B testing.

Pentair Evaluated usability of aquaponics application.

Design was tested through A/B usability assessments.

Technical Skills

Machine Learning: classification, regression, clustering

Statistical Methods: Regression, structural equation modeling, time series, bayesian

Software and Programming Languages: R, Python, SAS,

LaTeX, Excel, Qualtrics

Education

Doctoral Candidate in Human Factors and Applied Cognition Expected Graduation: December 2018

North Carolina State University, Raleigh, NC

Masters in Statistics 2017 - 2018 North Carolina State University, Raleigh, NC (Expected)

Bachelor of Science in Psychology

University of Florida, Gainesville, FL

**Publications** Travis, J., Kaszycki, A., Geden, M., & Bundle, J. (2018). Some Jan. 2017 - Present

Aug. 2014 - Present

Jan. 2015 - April 2015

Jan. 2015 - Dec. 2015

Aug. 2014 - Dec. 2014

2014 - 2018

(Expected)

2009 - 2013

Stress is Good Stress: The challenge-hindrance framework, academic self-efficacy, and academic outcomes. Contemporary Educational Psychology (submitted, in review). Pearson, C., Geden, M., Mayhorn, C. (2018). Who's the Real Expert Here? Pedigree's Unique Bias on Trust Between Human and Automated Advisers. Human Factors. Human Factors (submitted, in review). **Geden**, M., Staicu, A., Feng, J. (2018). Reduced Target Facilitation and Increased Distractor Suppression during Mind Wandering. Experimental Psychology (accepted/in press). Geden, M., Staicu, A., Feng, J. (2017). The Impact of Perceptual Load and Time on Mind Wandering in Driving. *Transportation* Research Part F: Traffic Psychology and Behaviour (accepted/in press). HeeSun, C., Geden, M., Feng, J. (2017). Mind Wandering in Relation to the Concurrent Task: Modality of the Concurrent Task Impacts How the Mind Wanders. PLOS ONE. Geden, M., & Feng, J. (2015). Simulated Driving Environment Impacts Mind Wandering. Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 59(1), 776-780. **Presentations** Joint Statistical Meetings: Baltimore 2017 A mixed-effects modeling approach to studying the impact of mind wandering on selective attention **International Conference on Applied Human Factors and** 2017 **Ergonomics: Orlando** Analyzing the usability of a dashboard display for a monitoring system on a smartphone Human Factors and Ergonomics Society Conference: LA 2015 Perceptual Load affects Mind Wandering during Simulated Driving North Carolina Cognition Conference: Elon 2015 Perceptual Load affects Mind Wandering during Simulated Drivina **Gradudate Peer Mentorship Program** 2017-2018 Member **NC State University Standing Committee on Library** 2016-2017 Member **Human Factors and Ergonomics Society: Golden Student** 2015-2016

#### **Professional Affiliations**

Chapter Vice-President

**Positions** 

American Statistical Association • User Experience Professionals Association • Human Factors and **Ergonomics Society** 

## Selected Graduate Coursework

#### **Statistics**

Applied Bayesian Analysis, Statistical Programming, Data Mining with SAS, Fundamentals of Inference I/II, Applied Multivariate and Longitudinal Data Analysis, Applied Time Series, Quantitative Methods in Psychology I/II

# **Human Factors and Applied Cognition**

Visual Perception, Cognitive Processes, Psychometrics, Human Attention, Human Factors Systems Design, Physiological Psychology, Action Research, Ergonomic Performance Assessment

#### Volunteering

## **Alachua County Crisis Center**

Phone Counselor

#### References

# **Dr. Jing Feng**, Assistant Professor

Department of Psychology North Carolina State University Raleigh, NC 27695 (919) 515-3411 jing\_feng@ncsu.edu

## Dr. Anne McLaughlin, Associate Professor

Department of Psychology North Carolina State University Raleigh, NC 27695 anne\_mclaughlin@ncsu.edu

#### Dr. Ana-Maria Staicu, Assistant Professor

Department of Statistics North Carolina State University Raleigh, NC 27695 (919) 515-0644 ana-maria\_staicu@ncsu.edu 2013-2014