

MICHAEL GEDEN

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Github: www.github.com/mageden

Recent Work Experience

Quantitative Researcher: Laboratory of Analytical Sciences

- Developed a survey testing a novel assessment using MTurk
- Analyzed data using Structural Equation Modeling in R
- Managed a small team for qualitative coding
- Visualized underlying topography using TSNE/PCA
- Generated reports and communicated findings to the research team

2017 - Present

Graduate Researcher: Applied Cognitive Psychology Lab

- Modeled the nonlinear influence of mind wandering on driving speed over time using Generalized Additive Mixed Models
- Predicting mind wandering during driving using various machine learning methods (mixed models, random forests, SVM)

2014 - Present

Quantitative User Experience Researcher: SAS Intern

- Computed lexical complexity on webscraped documentation
- Tested proposed information architecture using A/B design
- Wrote a technical report and presented findings to stakeholders

Jan. 2015 -
Dec. 2015

Technical Skills

Machine Learning: Naive bayes, KNN, K-Means, SVM, ensemble methods, random forest, Adaboost, XGboost, dimension reduction

Statistical Methods: Regression (multiple, logistic, mixed effect, additive, lasso, etc), structural equation modeling, time series (box-jenkins, state space, etc), bayesian, PCA

Selected Coursework: Data Mining, Statistical Programming, Applied Longitudinal and Multivariate Statistics, Applied Time Series, Applied Bayes, Statistical Inferences

Software and Programming Languages: R, Python, SQL, SAS, LaTeX, Excel, Qualtrics

Education

Doctoral Candidate in Human Factors and Applied Cognition
North Carolina State University, Raleigh, NC

2014 - 2018
(Expected)

Masters in Statistics
North Carolina State University, Raleigh, NC

2017 - 2018
(Expected)

Bachelor of Science in Psychology
University of Florida, Gainesville, FL

2009 - 2013

Select Publications

- Pearson, C., **Geden, M.**, & Mayhorn, C. (2018). *Pedigree's Effects on Trust between Humans and Automation: Conflicting Information in a Dual Adviser Task*. Manuscript under review.
- **Geden, M.**, Staicu, A., Feng, J. (2018). *Reduced Target Facilitation and Increased Distractor Suppression during Mind Wandering*. Manuscript under review.
- **Geden, M.**, Staicu, A., Feng, J. (2017). A mixed-effects modeling approach to studying the impact of mind wandering on selective attention. *Joint Statistical Meetings*.
- **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*. Manuscript accepted for publication.
- 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*. Manuscript accepted for publication.
- **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.