# THOMAS GORMAN CV

Cognitive Scientist

Department of Psychological and Brain Sciences 1101 E. 10th St. Bloomington, IN 47405 

## **Education**

2017 - May 2024 University of Indiana - Bloomington

PhD in Psychology and Cognitive Science,

2011 - 2015 University of Wisconsin Madison

B.Sc. in Psychology,

## **Research Experience**

## Percepts and Concepts Lab

Principal Investigator: Robert Goldstone, PhD

• Graduate Student (2017 - Present)

# Learning and Transfer Lab (University of Wisconsin-Madison)

• Principal Investigator: C. Shawn Green, PhD

■ Lab Manager / Research Coordinator (2015-2017)

• Undergraduate Research Assistant (2013 - May 2015)

## Alexander Lab - Medical Physics (University of Wisconsin-Madison)

• Principal Investigator: Andrew Alexander, PhD

■ Research Coordinator (2015 – 2017)

## Center for Healthy Minds (University of Wisconsin-Madison)

• Principal Investigator: Richard J. Davidson, PhD

Undergraduate Research Assistant (January 2014 - May 2015)

#### Skills

| Category                              | Skills  |
|---------------------------------------|---|
| Programming                           | <ul> <li>R (Quarto, Rmarkdown, Shiny)</li> <li>JavaScript</li> <li>Python (jupyter, torch, tensorflow)</li> <li>Bash (Shell scripting, Workflow automation)</li> <li>MATLAB (psychtoolbox)</li> </ul>                                   |
| Computational Modeling                | <ul> <li>Artificial Neural Networks</li> <li>Exemplar Models</li> <li>Bayesian Statistics</li> <li>Mixed Effect Models</li> <li>Similarity Scaling</li> <li>Approximate Bayesian Computation</li> <li>Individual Differences</li> </ul> |
| Data Analysis                         | <ul> <li>Multilevel Modeling</li> <li>Bayesian Statistics</li> <li>Mixed Effects Models</li> <li>Dimensionality Reduction</li> <li>Frequentist ANOVA/Regression</li> </ul>  |
| Experimental Skills                   | <ul> <li>Behavioral Tasks</li> <li>Online Data Collection (jsPsych for web-based experiments)</li> <li>Survey Data Collection (Qualtrics)</li> <li>Mechanical Turk</li> <li>MRI &amp; EEG</li> </ul>                                    |
| Workflow Automation & Version Control | <ul><li>Multi-language workflows (integrating R, Bash, Python)</li><li>Git (Documentation, backup, branching, collaboration)</li></ul>  |
| Tools                                 | <ul><li>RStudio</li><li>VS Code</li><li>Vim/Neovim</li><li>Obsidian</li></ul>   |
| Miscellaneous Skills                  | <ul><li>Web Scraping</li><li>SQL</li><li>Website Design</li></ul>   |

# **Journal Articles and Conference Proceedings**

- **Gorman**, T. E., & Goldstone, R. L. (2022). An instance-based model account of the benefits of varied practice in visuomotor skill. Cognitive Psychology, 137, 101491.
- Bazyldo, A., Kecskemeti, S., Cochrane, A., Gorman, T., Rokers, B., Dean, D., Green, C. S., & Alexander, A. L. (2021). Assessment of R1 Relaxometry Changes Induced via Repeated Videogame Training as a Measure of Neuroplasticity in College-aged Brains. In Proceedings of the ISMRM & SMRT Annual Meeting & Exhibition. An Online Experience. link
- Patrick, A., Dean, D., Gorman, T., Green, C. S., & Alexander, A. (2019). Assessment of Microstructural Changes Induced via Repeated Videogame Training as a Measure of Neuroplasticity in Normal Developing, College-age Brains.
   In Proceedings of the 27th Annual Meeting & Exhibition of the International Society for Magnetic Resonance in Medicine. Montréal, QC, Canada. link
- Dean, C. D., Patrick, A. M., Gorman, T., Green, C. S., & Alexander, A. L. (2018). Neuroplastic Changes of Myelin Microstructure With Video Game Play. In Proceedings of the Joint Annual Meeting ISMRM-ESMRMB. Paris, France. link

- Kattner, F., Cochrane, A., Cox, C. R., **Gorman**, T. E., & Green, C. S. (2017). Perceptual learning generalization from sequential perceptual training as a change in learning rate. Current Biology, 27(6), 840-846.
- **Gorman**, T.E., & Green, C.S. (2016). Short-term mindfulness intervention reduces the negative attentional effects associated with heavy media multitasking. Scientific Reports, 6.

# **Book Chapters**

- Gorman, T.E., Gentile, D.A., & Green, C.S. Video game addiction: a short primer (2018). American Journal of Play, 10 (3), 309-327
- Gorman, T.E., & Green, C.S. (2017). Young minds on video games. In F. Blumberg & P. Brooks, (Eds.), Cognitive development in digital contexts. 121-143.
- Green, C. S., **Gorman**, T., & Bavelier, D. (2016). Action Video-Game Training and Its Effects on Perception and Attentional Control. In Cognitive Training (pp. 107-116). Springer International Publishing.

#### **Presentations**

- Half Day Tutorial on Measuring Mindfulness Behaviorally: Onsite/Online Data Col-lection with jsPsych
  - Cognitive Science Conference 2018
- Does interleaving go the distance? Exploring the effect of dissimilarity on interleaved category learning
  - Math Psych/ICCM 2018
- Short term mindfulness intervention reduces cognitive deficits in heavy media multi-taskers
  - Undergraduate Research Symposium UW-Madison April 16th, 2015

## **Awards**

IU-Bloomington - Development Training Grant - beginning Fall 2019
 IU-Bloomington - Steinmetz Summer Research Award - 2018
 UW-Madison - Undergraduate Research Scholar Award - 2015
 UW-Madison - Hilldale Undergraduate/Faculty Research Fellowship - 2014

# Ad-hoc Reviewer

Cognitive Science

Journal of Experimental Psychology: General

Journal of Experimental Psychology: Human Perception and Performance

Contemporary Educational Psychology

#### **Conferences**

Cognitive Science Conference - 2021 Cognitive Science Conference - 2018 Mathematical Psychology & ICCM 2018 Boston Meeting on Methods in Cognitive Training (NSF Sponsored) – May 2017