

DANIEL GARTENBERG

gartenbergdaniel@gmail.com * www.DanielGartenberg.com

EDUCATION

- 2016 **Ph.D. in Psychology** - Human Factors and Applied Cognition, George Mason University, Fairfax, Virginia.
- 2011 **M.A. in Psychology** – Human Factors and Applied Cognition, George Mason University, Fairfax, Virginia.
- 2009 **B.S. in Psychology & English**, University of Wisconsin, Madison, Wisconsin.

SKILL SET

Developing Smart Phone and Smart Watch Software * Objective C iOS Dev * R statistical analysis * SPSS * Signal Detection Theory * Task Analysis * UX Research * Procedural Errors * Quantitative & Qualitative Research * ACT-R Cognitive Computational Modeling * Eye Tracking * E-Prime * Balsamiq Wireframe Mockups * WordPress * Patents and Trademarks * Technical Writing & Presenting * Ideation, Project Management & Teamwork * LISP * HTML * PHP * JSON * Neural Nets & Deep Learning * Parameter Searching * Data Science * 3D Printing * iMovie * *Adobe Products * Pop Prototyping * Javascript * Java * Subversion & GitHub*

Bold = Expert

Normal Font = Intermediate

Italics = Novice

WORK EXPERIENCE

- 2009-current **Founder and CEO**, Mobile Sleep Technologies, Proactive Life, Fly Fleet
- ▶ www.proactiveLife.org * www.flyfleet.org/ * www.mobilesleeptechnologies.com
 - ▶ Currently Executive a \$225,000 Phase 1 STTR from the NSF entitled: The use of wrist-worn devices and sensory stimulation to evaluate sleep
 - ▶ Developed 2 apps in the top 10 of their category on the App Store:
*Fleet Travel Guide * Proactive Sleep Alarm Clock * Mind Metrics * Reaction Time * sleep-2-Peak * Sleep Smart Alarm Clock * ROC-V Mobile*
- 2009-2015 **Engineering Psychologist**, Naval Research Laboratory, Intelligent Systems
- ▶ Advisor: Dr. Greg Trafton
 - ▶ Analyzed eye data
 - ▶ Developed Predictive Models of Dynamic Tasks
 - ▶ Managed undergraduate and masters students
- 2014 - 2015 **Consultant**, Hillcrest Labs Inc
- ▶ Advisor: Chuck Gritton, CTO
 - ▶ Advised on developing a sleep detection algorithm
- 2013 (summer) **Student Researcher**, Air Force Research Laboratory, Cognitive Models & Agents

- ▶ Advisor: Dr. Glenn Gunzelmann
 - ▶ Developed models of sleep and the human alertness system
- Project Manager**, Rockwell Collins Inc

 - ▶ Oversaw large project developing a new app.
 - ▶ Advisory: Arlen Breiholz
 - ▶ Managed a team that consisted of an iPhone programmer and a designer
 - ▶ Identified clients needs and developed software that met requirements
 - ▶ Conducted usability testing with pilots
- Head Programmer**, contractor for Neurosummon LLC

 - ▶ Worked with a neuroscientist
 - ▶ Developed the iPhone app *sleep-2-Peak*
- Project Manager**, contractor for Night Vision LLC

 - ▶ Advisor: Dr. Matthew Peterson who executed a \$57k, US ARMY NVESD
 - ▶ Developed iPhone & Android app: *Recognition of Combat Vehicles (ROC-V)*
 - ▶ Managed a team programmers designers, and subject experts
- Research Assistant**, Knowledge and Concepts Lab

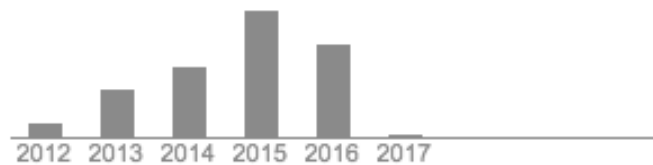
 - ▶ Conducted Research with Dr. Timothy Rogers
 - ▶ Developed artificial neural networks (i.e. deep learning)
- Research Assistant**, Language, Cognition, and Neuroscience Lab

 - ▶ Conducted Research with Dr. Maryellen MacDonald
 - ▶ Explored the effect of language production and active learning on memory
 - ▶ Ran participants in experiments

HONORS / AWARDS

- ▶ Winner of Washington DC Usabilathon, (team leader), 2015
- ▶ Alan Berman Publication Award – Naval Research Laboratory, 2014
- ▶ Best Technical Paper – Air Traffic Control Association’s 58th Annual Meeting, 2014
- ▶ \$2,500 1st place prize. FAA design challenge: Innovative application of FAA data, 2013
- ▶ \$50 Exemplary work at the GMU interventions showcase, 2012
- ▶ ACT-R summer school participant, 2010
- ▶ \$10,000 Schoof’s Prize for Creativity and Innovation Prize, UW- Engineering, 2009
- ▶ \$1,000 Schoof’s for Creativity and Innovation Prize, UW –Engineering, 2008
- ▶ \$1,500 Travel Grant, UW–English, 2007
- ▶ National Debate Team Champion, We The People: The Citizen and the Constitution, 2004

Citation indices	All	Since 2012
Citations	66	66
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PEER REVIEWED JOURNAL ARTICLES

Dissertation: A Comprehensive Computational Model of Sustained Attention. Advisor: Greg Trafton, Committee: Glenn Gunzelmann, Tyler Shaw, & Patrick McKnight.

Brunet, J. F., Dagenais, D., Therrien, M., **Gartenberg, D.**, & Forest, G. (*accepted*). Validation of sleep-2-Peak: A smartphone application that can detect fatigue-related changes in reaction times during sleep deprivation. *Behavior Research Methods*.

Youmans, R. J., Smith, M. A., **Gartenberg, D.**, Sarbone, B., Liu, S., Higgins, J., Lee, P., Penaranda, N., & Liu, S. (2014). FleetTM: A distributed information gathering and processing system for the alleviation of commercial air travel anxiety. *The Journal of Air Traffic Control*, 56, 1, 32-38.

¹Breslow, L., **Gartenberg, D.**, McCurry, M., & Trafton, J. G. (2014). Dynamic Operator Overload: A model for predicting workload during supervisory control. *IEEE Transactions on Human-Machine Systems*, 44, 1, 30-40.

Gartenberg, D., McCurry, M., Breslow, L., & Trafton, J. G. (2014). Situation awareness recovery. *Human Factors*, 56, 4, 710-727.

Gartenberg, D., & Thornton, R., Mortazavi, M., Pfannenstiel, D., Taylor, D., & Parasuraman, R. (2013). Collecting health-related data on the smart phone: mental models, cost of collection, and perceived benefit of feedback. *Pers Ubiquit Comput*, 17, 3, 561-570.

CONFERENCES, PRESENTATIONS, AND POSTERS

Brunet, J., Therrien, M., Hebert, K., Tzivanopoulos, N., **Gartenberg, D.**, & Forest, G (2015). Greater decline in reaction time performance on a smartphone application during sleep deprivation is linked to extraversion. *In Proceedings of the 29th annual meeting of the Associated Professional Sleep Societies*.

¹ Alan Berman Research Publication Award

Gartenberg, D., Gunzelmann, G., Veksler, B., & Trafton, J. G. (2015). Improving vigilance analysis methodology: Questioning the successive versus simultaneous distinction. *In Proceedings of 59th annual meeting of the Human Factors and Ergonomics Society.*

Brunet, J., Therrien, M., **Gartenberg, D.,** & Forest, G (2014). Validation of a smartphone psychomotor vigilance application: Preliminary Data. *In Proceedings of the 28th annual meeting of the Associated Professional Sleep Societies.*

Gartenberg, D., Veksler, B., Gunzelmann, G., & Trafton, J. G. (2014). An ACT-R process model of the signal duration phenomenon of vigilance. *In Proceedings of 58th annual meeting of the Human Factors and Ergonomics Society.*

²Youmans, R. J., Smith, M. A., **Gartenberg, D.,** Liu, S., Higgins, J., Penaranda, N., & Sarbone, B. (2013). FleetTM: A Distributed Information Gathering and Processing System for the Alleviation of Commercial Air Travel Anxiety. *Proceedings of the 58th Air Traffic Control Association's Annual Conference & Exposition, Washington, DC.*

Gartenberg, D. (2013). MICA: Memory Improvement Clock Alarm. *In Presented at the 5th Quantified Self Conference 2013, San Francisco, California.*

Gartenberg, D. (2013). A Quantified Self scientific journal. *In Proceedings of the 4th Quantified Self Conference 2013, Amsterdam, Netherlands.*

Khemplani, S., **Gartenberg, D.,** Park, K.H., & Trafton, J.G. (2013). Uncertainty can increase explanatory credibility. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 2692-2697). Austin, TX: Cognitive Science Society.

Gartenberg, D., Breslow, L., Park, J., McCurry, M., & Trafton, J. G. (2013). Adaptive Automation and cue invocation: The effect of cue timing on operator error. *Proceedings of Computer Human Interaction (CHI) 2013.*

Therrien, M., Hebert, M., **Gartenberg, D.,** De Koninck, J., & Forest, G (2013). Awareness of reaction time variations with sleep schedule measured on a smartphone can improve sleep habits and performance. *In Proceedings of the 27th annual meeting of the Associated Professional Sleep Societies.*

Hebert, M., **Gartenberg, D.,** De Koninck, J., & Forest, G, Therrien, M. (2013). Alertness measured by average reaction time on a smartphone predicts physical performance. *In Proceedings of the 27th annual meeting of the Associated Professional Sleep Societies.*

Gartenberg, D. (2012). Is QS science? The role of QS in scientific discovery. *In Presented at the 2nd Quantified Self Conference 2012, Palo Alto, CA.*

² Named Best Technical Paper of the 58th Air Traffic Control Association's Annual Conference & Exposition

- Gartenberg, D., De Visser, E., & Strohl, J. (2012).** Turning scientific concerns into strengths for quantified self experimentation. *Guest editorial for the Quantified Self.*
- Eisert, J., **Gartenberg, D., Thornton, R., & Youmans, R. (2012).** Optimal interface location and limits of gesture proficiency in an automobile. *In Proceedings of 56th annual meeting of the Human Factors and Ergonomics Society.*
- Gartenberg, D. I., Breslow, L., McCurry, J. M. Trafton, J. G. (2012).** Time pressure, memory, and task knowledge facilitate the opportunism heuristic in dynamic tasks. *In Proceedings of 56th annual meeting of the Human Factors and Ergonomics Society.*
- Gartenberg, D., Pfannenstiel, D., Ghazanfari, P., & Yaktieen, A. (2012).** Proactive Life: Building apps that improve health and decision making. *Behavioral and Health interventions Showcase.* Held by George Mason University.
- Gartenberg, D., Forest, G., & Therrien, M. (2012).** A smartphone PVT application is successfully used to identify one's sleep schedule associated with better daytime alertness. *In Proceedings of the 26th annual meeting of the Associated Professional Sleep Societies.*
- Therrien, M., Hebert, M., **Gartenberg, D., De Koninck, J., & Forest, G (2012).** High correlation and predictive value between alertness measured by reaction time and physical performance. *In Proceedings of the 26th annual meeting of the Associated Professional Sleep Societies.*
- Gartenberg, D. McGarry, R., Phannenstiel, D., Cisler, D., Shaw, T., & Parasuraman, R. (2012).** Development and evaluation of a neuroergonomic smart phone application to assess vigilance and arousal. *4th International Conference on Applied Human Factors and Ergonomics, 6377-6387.*
- Gartenberg, D. & Pfannenstiel, D. (2011).** Proactive Sleep: Reducing the costs of data collection and increasing the benefits of data access. 1st Annual Quantified Self Conference. San Francisco, CA: *Quantified Self.*
- Gartenberg, D. I., McCurry, J. M. Trafton, J. G. (2011).** Situation Awareness Reacquisition in a Supervisory Control Task. *In Proceedings of 55th annual meeting of the Human Factors and Ergonomics Society.*
- Gartenberg, D. (November 2010).** Sleep and Health on the Smart Phone: Applications towards Behavioral Treatment For Insomnia. *Sleep Review Magazine.*
- Gartenberg, D. & Parasuraman, R. (2010).** Understanding Brain Arousal and Sleep Quality Using a Neuroergonomic Smart Phone Application. In Marek, T., Karwowski, W., & Rice, V. (Eds.), *Advances in Understanding Human Performance, 3rd International Conference on Applied Human Factors and Ergonomics* (pp. 210-220).
- Humane, A., Yenger, C., Wang, X. Y., **Gartenberg, D., & Borah, P. (2006).** "How the New York Times covered the 2004 Presidential Campaign: A Case of New York Times Coverage." *Association for Education in Journalism & Mass Communication.*

PATENTS

Gartenberg, D, Youmans, R. J., Smith, M., Spinella-Mamo, V. Situation Awareness Travel Information (Dec 12, 2014). Non-Provisional Patent #14568944.

Gartenberg, D, Youmans, R. J., Geagla, O., Spinella-Mamo, V. Situation Awareness Travel Information (July 30, 2014). Provisional Patent #6,2030,938.

Gartenberg, D. & Gerashchenko., L. Sleep Monitoring and Stimulation (June 12, 2014). Non-Provisional Patent #20140371547.

Gartenberg, D. Cyclical Behavior Modification (June 18, 2013). Patent #8,468,115.

Gartenberg, D, Youmans, R. J., Higgins, J., Lee, P., Geagla, O., Raether, E., Sarbone, B., & Smith, M. Method and device to determine pedestrian congestion (December 14, 2013). Provisional Patent #6,191,174.

INVITED TALKS

“A real-time adaptive automation cue invocation system using the Dynamic Model of Operator Overload.” Presented at the Air force Research Laboratory: Cognitive Models and Agents Division. Dayton, Ohio.

Youmans, R. J., Smith, M. A., **Gartenberg**, D. (October, 2013). Fleet™: A Distributed Information Gathering and Processing System for the Alleviation of Commercial Air Travel Anxiety. Air Traffic Control Association , Washington, DC.

PROFESSIONAL AFFILIATIONS

- ▶ Organizer of the Quantified Self Washington DC Chapter, 2011 - present
- ▶ Newsletter editor for the George Mason ARCH lab, 2011-2013
- ▶ Human Factors and Ergonomics Society, student member, 2009 - present
- ▶ Computer Human Interaction Society, student member, 2009 - 2012
- ▶ Reviewer for the *Journal of Sleep*
- ▶ Reviewer for the *Human Factors and Ergonomics Society*
- ▶ Reviewer for *Human-Robot Interaction*
- ▶ Reviewer for *Computer Human Interaction*