

# Julia Tobias Wright

<b>Education</b>	<b>PhD</b>	<b>University of Central Florida</b> , Orlando, FL Applied Experimental and Human Factors Psychology Minds in Technology/Machines in Thought Laboratory (MIT <sup>2</sup> )	Expected May 2015
	<b>MS</b>	<b>University of Central Florida</b> , Orlando, FL Modeling and Simulation, Human Systems Focus	2013
	<b>BS</b>	<b>Grand Valley State University</b> , Allendale, MI Psychology, Minor in Applied Statistics	2011
		<b>Austin Peay State University</b> , Clarksville, TN Mechanical Engineering (completed 66 credit hours)	
	<b>AS</b>	<b>Louisville Technical Institute</b> , Louisville, KY Mechanical Design and Drafting	1981
<b>Honors and Awards</b>	<b>Best Scientific Paper</b>	Converging Science Summit, Stony Brook University, New York	2011
	<b>Presidential Doctoral Fellowship</b>	University of Central Florida	2011 - Present
	<b>Golden Key International Honour Society</b>		2011 - Present
	<b>Phi Kappa Phi</b>		2009 - Present
	<b>Dean's List</b>	Grand Valley State University	2009, 2010, 2011
<b>Security Clearance</b>	<b>OPM Secret</b>		Granted August 2012
<b>Research Experience</b>	<b>Experimental Psychologist</b>	with primary research interests in HCI/HRI, human-agent teaming, automation transparency, and individual differences in perception and performance. Experienced in all aspects of research and experiment development, including: Theory development Experimental design, protocol and procedure development Training, Coordinating, and Directing research team members Data Collection and Coding Data Analysis and Interpretation	
	<b>Research Psychologist</b>	Army Research Laboratory, Orlando, FL Primary Investigator: Dr. Jessie Chen <ul style="list-style-type: none"><li>• Transparency in Automation<ul style="list-style-type: none"><li>○ Human-Agent teaming, HRI, Individual differences</li></ul></li><li>• Human-agent teaming<ul style="list-style-type: none"><li>○ HRI, Levels of Automation, Individual differences</li></ul></li><li>• Route Planning applications<ul style="list-style-type: none"><li>○ Dismounted soldiers, Individual differences, HCI</li></ul></li></ul>	2012 - Present

**Graduate Research**, University of Central Florida, Orlando, FL 2011 - Present  
Faculty Advisor: Dr. Peter Hancock, MIT<sup>2</sup> Lab

- Individual differences and multimodal cueing effectiveness.
- The effect of imperfect automation on multimodal cueing sensory cueing
- Examining the relationship between trust in automation and performance
- Identifying the role of attributions in human perceptions of robots.
- How valence and relevance of interruptions impact working memory tasks.
- Ambient distractors and their effect on attentional resources.

**Undergraduate Research Assistant**, Grand Valley State University, Allendale, MI  
Primary Investigator: Dr. Benjamin Swets 2009 - 2011

- Interruptions in the Emergency Room – Investigated whether interruptions can have beneficial effects on task performance. This was a joint research project between GVSU and Stony Brook University (co-PI: Dr. Nancy Franklin).  
Directed subjects,  
Developed the coding system,  
Supervised and Trained RAs and coders,  
Collected and Coded data,  
Collaborated with team members at Stony Brook University.

**Undergraduate Research Assistant**, Grand Valley State University, Allendale, MI  
Primary Investigator: Dr. Penney Nichols-Whitehead 2010 – 2011

- Development of Informational Biases – Investigated way-finding and direction giving preferences.  
Developed experimental protocol for recording sessions  
Collected and Coded data
- Material-Arousal Confound - Investigated anxiety/arousal effects on eyewitness memory while holding visual stimuli constant across groups. Utilized an EyeLink 1000 eyetracker to monitor subject's focus on visual material.  
Developed protocol for eyetracker setup and calibration  
Collected data

**Teaching Experience**

**Instructor**, University of Central Florida, Orlando, FL  
Social Psychology Fall 2013  
One section, 170 students

**Graduate Teaching Assistant**, University of Central Florida, Orlando, FL  
Science and Pseudoscience Fall 2012

POPUP project, University of Central Florida Spring 2012  
Social Psychology, one section, 399 students  
Development of online experiments for undergraduate students

Statistics in Psychology, University of Central Florida Fall 2011  
Taught two lab sections, 25 students each section

- Publications** White, T. L., Mercado, J., **Wright, J.**, Sanders, T., & Hancock, P. A. (*submitted*). Trust in cross-modal sensory cueing automation in a target detection task. *Military Psychology*.
- Wright, J.L.**, Chen, J.Y.C., Quinn, S.A., & Barnes, M.J. (2013). The effects of level of autonomy on human-agent teaming for multi-robot control and local security maintenance. *Army Research Laboratory Technical Report ARL-TR-6724*.
- Mercado, J. E., White, T. L., Sanders, T., **Wright, J.**, & Hancock, P. A. (2013). Performance Effects of Imperfect Cross-Modal Sensory Cueing in a Target Detection Simulation. *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology*, 1548512913509908.
- Proceedings (Peer Reviewed)** **Wright, J.L.**, Sanders, T., & Hancock, P. A. (2013, September). Identifying the role of attributions in human perceptions of robots. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 57(1), 1288-1292.
- Chen, J. Y., Quinn, S., **Wright, J.**, Barber, D., Adams, D., & Barnes, M. (2013, March). Human-agent teaming for robot management in multitasking environments. In *Proceedings of the 8th ACM/IEEE international conference on Human-robot interaction* 103-104. IEEE Press.
- Mercado, J.E., White, T.L., Sanders, T., & **Wright, J.** (2012). Effects of Cross-Modal Sensory Cueing Automation Failure in a Simulated Target Detection Task. *Proceedings of the Society for Modeling and Simulation International 2012 Conference on Defense and Military Modeling & Simulation (DMMS'12)*. San Diego, CA.
- Mercado, J E., White, T., Hancock, P.A., Sanders, T., & **Wright, J.** (2012). Improving performance in an imperfect target detection simulation through experience. *Proceedings of the Society for Modeling and Simulation International 2012 Conference on Defense and Military Modeling & Simulation (DMMS'12)*. San Diego, CA.
- Presentations and Symposia (Peer Reviewed)** White, T. L., Mercado, J., **Wright, J.**, Sanders, T., & Hancock, P. A. (2013, April). Trust in cross-modal sensory cueing automation. *Embry Riddle 2013 Human Factors and Applied Psychology Conference*, Daytona, FL.
- White, T., **Wright, J.**, Sanders, T., Hancock, G., & Sims, V. (2012, August). Interruptions in short-term memory. *Poster submitted to the 120<sup>th</sup> annual meeting of the American Psychological Association, Orlando, FL*.
- Franklin, N., Swets, B., Ring, L., **Wright, J.**, Greenstein, M., Viccellio, A. & Plataras, B. (2011). The benefits of interruptions during complex task performance. *Paper presented at the 52nd Annual Psychonomics Society Meeting, Seattle, Washington*.
- Franklin, N., Swets, B., Ring, L., **Wright, J.**, Greenstein, M., Viccellio, A. & Plataras, B. (2011). Those irritating interruptions and why we can't live without them. *Oral presentation at the Inaugural Converging Science Summit, Stony Brook University, New York*. Awarded Best Scientific Paper

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**Publications in progress**      Chen, J.Y.C., Boyce, M., Wright, J.L., Procci, K., Barnes, M. (in prep). SA-based Agent Transparency. *Army Research Laboratory Technical Report*

Wright, J.L., White, T.L., Sanders, T., Mercado, J.E., & Hancock, P.A. (in prep). The role of individual differences in cross-modal sensory cueing on target detection tasks.

Wright, J.L., Chen, J.Y.C., Quinn, S.A., & Barnes, M.J. (in prep). The interaction of individual differences and level of autonomy’s impact on human-agent teaming.

Wright, J.L., Chen, J.Y.C., Quinn, S.A., & Barnes, M.J. (in prep). Individual differences and human-agent teaming: An analysis of AOI usage and scan efficiency.

**Refereed Journal Reviewing**      **Reviewer:**  
Army Research Laboratory Technical Reports  
*HCII 2014* Special Session Review

**Consulting Reviewer:**  
*Ergonomics*  
*Journal of Sports Sciences*

**Engineering Experience**      Mechanical Design Engineer with expertise in product development from ideation stage through production release for the automotive and appliance industries, as well as designing systems and installations for industrial applications. Experience includes:  
Developing program protocol and procedures,  
Developing CAD models, assemblies, layouts and drawings  
Supervising and coordinating design and manufacturing personnel,  
Researching and implementing current design and manufacturing technology, practices, and standards.

- ADAC AUTOMOTIVE, INC.**, Grand Rapids, MI      2003 – 2009  
Design Engineer
- DISHER DESIGN, INC.**, Zeeland, MI      2002 – 2003  
Design Engineer
- JOHNSON CONTROLS, INC.**, Holland, MI      1996 – 2002  
Design Engineer
- FRIGIDAIRE**, Range Division, Springfield, TN      1989 – 1996  
CAD Designer
- CAYCE MILL SUPPLY COMPANY**, Clarksville, TN      1987 – 1989  
Technical Consultant
- UNITED ELECTRIC COMPANY**, Louisville, KY      1984 – 1987  
Supervisor/Drafting Department.
- COMMONWEALTH ELECTRIC CO.**, New Washington, IN      1981 – 1983  
Quality Control Inspector Level 1

**Patents**      Wright, J.L. and Dinaso, J., “Sealed Burner Assembly Methods,”  
United States Patent, No. 5,623,917.

## **JULIA TOBIAS WRIGHT**

<b>Computer Skills</b>	<b>Productivity:</b> Microsoft Office Suite, MS Project, Photoshop <b>Experimental Software:</b> Labview, SuperLab, Qualtrics <b>Statistics:</b> SPSS, SAS, JMP, R, AMOS, LISREL, MS Excel <b>CAD/CAE:</b> CATIA V4, CATIA V5, Pro-E, Google SketchUp, Autodesk	
<b>Professional &amp; Student Organizations</b>	<b>APA, Divisions 3, 19 &amp; 21</b>	2011 - Present
	<b>Human Factors and Ergonomics Society</b>	2011 - Present
	<b>Human Factors and Ergonomics Society</b> University of Central Florida Student Chapter	2011 - Present
	<b>Psi Chi Honor Society</b> , Grand Valley State University Chapter	2010 - Present
	<b>President, Non-Traditional Student Organization</b> , Austin Peay State University	1995, 1996
	<b>President, Student Advisory Committee</b> , Louisville Technical Institute	1980, 1981
<b>Community Service</b>	<b>Harbor Humane Society</b> , Holland MI	2007 - 2009
	<b>The Warren Animal Rescue</b> , Grand Haven, MI	1998 – 2005