Jaelle Scheuerman

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EDUCATION

Ph.D. in Computer Science
Tulane University   August 2015 - May 2020
Dissertation: *Computational Models of Heuristics and Bias in Human Behavior*

M.S. in Human Computer Interaction
Iowa State University   January 2012 - December 2014

B.S. in Computer Science
South Dakota School of Mines & Technology   August 2007 - May 2010

RESEARCH INTERESTS

Artificial Intelligence, Interactive Machine Learning, Human Systems Integration, Human-Machine Teams, Decision Support, Preferences, Cognitive Modeling, Cognitive Architectures, Multiagent Systems

RESEARCH

Computer Scientist   May 2020 - present
Center for Geospatial Sciences, Naval Research Lab

Research Assistant   September 2016 - May 2020
Center for Geospatial Sciences, Naval Research Lab

Research Assistant   August 2015 - May 2020
Department of Computer Science, Tulane University

Undergraduate Research Assistant   November 2008 - May 2010
South Dakota School of Mines & Technology

PUBLICATIONS & PRESENTATIONS

Publications in Peer Reviewed Journals, Books, and Conference Proceedings

Bishof, Z., **Scheuerman, J.**, Michael, Chris J., (2023) Closed-Loop Uncertainty: The Evaluation and Calibration of Uncertainty for Human-Machine Teams under Data Drift, *Entropy*

Scheuerman, J., Harman, J., Goldstein, R. R., Acklin, D., Michael, C. J. (2023), Visual preferences in map label placement, *Discover Psychology.*

Scheuerman, J., Harman, J., Goldstein, R. R., Acklin, D., Michael, C. J. (2023), Label placement preferences for digital maps (dataset), *Discover Psychology.*

Harman, J., **Scheuerman, J.**, (2023), Simple Rules outperform machine learning for personnel selection: insights from the 3rd annual SIOP machine learning competition, *Discover Artificial Intelligence*, 3(1), 2.

Scheuerman, J., Michael, C. J., Landreneau, B., Acklin, D. M. and Harman, J. L. (2021). "Designing Interactive Machine Learning Systems for GIS Applications" In: Lawless, W.F., Llinas, J., Sofge, D.A., Mittu, R. (eds) *Engineering Artificially Intelligent Systems. Lecture Notes in Computer Science*, volume 13000, pp. 147-158. Springer, Cham.

Scheuerman, J., Harman, J. L., Mattei, N. and Venable, K. B. (2020). Heuristic Strategies in Uncertain Approval Voting Environments, *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2020.*

Golob, E., Nelson, J. T., **Scheuerman, J**., Venable, K. B., Mock, Jeffrey R. (2021). Auditory spatial attention gradients and cognitive control as a function of vigilance, *Psychophysiology* 58.10.

Matkovic, V. **Scheuerman, J.**, Steeds, M. and Turner, S. (2020), Attending Doctoral Events - Experiences and Lessons, *IEEE Pervasive Computing* 19(4):29-34.

Scheuerman, J., Venable, K. B., Anderson, M. T., & Golob, E. J. (2018). Modeling spatial auditory attention in ACT-R: a constraint-based approach. *Postproceedings of the 9th Annual International Conference on Biologically Inspired Cognitive Architectures, BICA 2018.*

Scheuerman, J., Acklin, D., & Brown, N. (2018). Modeling Decision Making in a Biased Matchmaker Task, *Proceedings of the 16th International Conference on Cognitive Modeling.*

Scheuerman, J. & Acklin, D. (2017). Modeling Bias Reduction Strategies in a Biased Agent, In *Proceedings of the 2017 International Joint Conference on Artificial Intelligence.*

Scheuerman, J. (2015). AdventureCode: Computational Thinking Through Games, In *EdMedia+ Innovate Learning* (pp. 1832-1837). Association for the Advancement of Computing in Education (AACE).

Presentations

Scheuerman, J., Bishof, Z., Michael, Chris J., (2023) Calibrating Uncertainty in Interactive Machine Learning Environments, "Data Dependency and AI" SIG at the *Applied Human Factors and Ergonomics 2023*

Scheuerman, J., Landreneau, B., Lee, B., Michael, C.J. (2022). Interactive Approaches for Generating Better Map Views, *Computational Approaches for Understanding, Generating, and Adapting User Interfaces, Workshop at CHI 2022.*

Michael, C.J., Acklin, D., **Scheuerman, J.**, (2019). On Interactive Machine Learning and the Potential of Cognitive Feedback, *2nd Workshop on Deep Models and Artificial Intelligence for Defense Applications, Association for the Advancement of Artificial Intelligence Fall Symposium Series.*

Scheuerman, J., Venable, K. B. Anderson, M.T., Golob, E. J. (2017). Modeling Spatial Auditory Attention: Handling Equiprobable Attended Locations, *Cognition and AI for Human Centred Design.*

Scheuerman, J., Brown, N., Smith, D., Trenchard, M. & Myrick, S. (2017). Machine Learning: An Attempt to Predict Academic Attrition in Naval Air Traffic Control Training, *DoD Human Factors Engineering Technical Advisory Group Meeting TAG 71.*

Golob, E. J., Venable, K. B., Anderson, M. T., Benzell, J. A, & **Scheuerman, J.** (2016). Modelling auditory spatial attention with soft constraints, *4th International Workshop on Artificial Intelligence and Cognition.*

Krage, R. Rebenitsch. R., **Scheuerman, J.**, & Logar, A. (2010). A Framework for Developing Multitouch Applications, *Midwestern Instruction & Computing Symposium 2010*, University of Wisconsin-Eau Claire, Eau Claire, WI.

Chuluunkhuu, A., **Scheuerman, J.**, et. al. (2009). A General Purpose Online Survey Generation Tool, *Midwest Instruction & Computing Symposium*, South Dakota School of Mines & Technology, Rapid City, SD.

Posters

Scheuerman, J., Bishof, Z., Michael, Chris J., (2023) Modeled Cognitive Feedback to Calibrate Uncertainty for Interactive Learning, "Interactive Learning with Implicit Human Feedback" workshop at *ICML 2023*

Scheuerman, J., Michael, C. J., Acklink, D. M., Harman, J. L. (2021). Interactive Map Generation with Cognitive Models of Label Placement, *Navy Applications for Machine Learning 2021.*

Scheuerman, J., Harman, J., Mattei, N., Venable, K.B. (2020). Modeling Multi-Winner Approval Voting, *Society for Judgement and Decision Making Annual Conference 2020.*

Scheuerman, J., Harman, J. L., Mattei, N. and Venable, K. B. (2019). Heuristics and Voting Behavior in Multi-Winner Approval Voting, *Society for Judgement and Decision Making Annual Conference 2019.*

Scheuerman, J., Acklin, D., & Brown, N. (2018). An ACT-R Model of Biased Decision Making, *Society for Judgement and Decision Making Annual Conference 2018.*

Acklin, D., **Scheuerman, J.**, & Brown, N. (2018). Improving probabilistic decision making: Explicit instructions and internal strategies, *Society for Judgement and Decision Making Annual Conference 2018.*

Scheuerman, J., Venable, K. B. Anderson, M.T., Golob, E. J. (2018). Computational Model of Spatial Auditory Attention in ACT-R, *CogSci 2018*.

Scheuerman, J., Venable, K. B. Anderson, M.T., Golob, E. J. (2016). Modeling auditory spatial attention with an AI constraint-based approach, *Cognitive Neuroscience Society 2016*.

Other Speaking Opportunities

Scheuerman, J (2023). Making Data Driven Decisions with AI and Machine Learning. Guest Lecture for Essential CIO Skills, Virtual Information Executives.

Scheuerman, J and Howard, J. (2019). Beyond Computer Science: Succeeding as an Interdisciplinary Technologist. Mentoring Circle at Grace Hopper Celebration of Women in Computing.

Scheuerman, J. (2017-2019). Various guest lectures for *Artificial Intelligence* course on topics including Algorithmic Game Theory, Constraint Satisfaction Problems, and Informed Search. Tulane University, New Orleans, LA.

Scheuerman, J. (2018). Computational Models of Attention and Decision Making, Presentation at the *ACT-R Summer School*, Carnegie Mellon University, Pittsburgh, PA.

Adams, T., Dolan, W., King, S., Huddleston, A., Nelson, J & **Scheuerman, J**.(2015). Volunteering for Your Community and Career. Student Opportunity Lab at Grace Hopper Celebration of Women in Computing.

Scheuerman, J. (2015). Web Development in Prolog, Presentation to *New Orleans Functional Programming Group*, New Orleans, LA.

Scheuerman, J. (2012). *Technology and Digital Media: You Know it When You Do It*, Presentation at Ignite Tulane 2012, Tulane University, New Orleans, LA, April 17, 2012.

TEACHING

Instructor
Fall 2018
Tulane University

· *Intro to Computer Science I*

Teaching Assistant
Fall 2015 - Spring 2017
Tulane University

· *Intro to Computer Science I, Intro to Computer Science II, Intro to Algorithms, Software Studio*
· Guest lectures for *Artificial Intelligence* course (including Algorithmic Game Theory, Constraint Satisfaction Problems, and Informed Search)

Co-Instructor
Fall 2014, Fall 2015
Tulane University

· Computational Thinking for Work & Play, Fall 2014, Fall 2015

PROFESSIONAL

Manager of Technology Initiatives
July 2010 - August 2015
Newcomb College Institute, Tulane University

Web Developer
November 2005 - October 2008
Linn Productions

Web Designer
May 2003 - August 2005
Site4Sure.com

HONORS & AWARDS

Selected participant, Doctoral Consortium, International Conference on Autonomous Agents and Multiagent Systems (2020)

Selected participant, ACM Future of Computing Academy (2019)

GHC Scholar, Anita Borg Institute (2019, 2017)

Selected participant, Summer Institute on Bounded Rationality, Max Planck Inst. for Human Development (2019)

Silicon Bayou 100 award recognizing Louisiana's most influential people in tech (2019)

Selected participant, Grad Cohort, CRA-W (2019, 2017, 2016)

Selected participant, 25th Annual ACT-R Workshop & Summer School, Carnegie Mellon University (2018)

Ada Lovelace Award Nominee for Woman of the Year in NOLATech (2017)

Selected participant, Doctoral Consortium, International Joint Conference on Artificial Intelligence (2017)

Student Organization Adviser of the Year, Crest Awards, Tulane University (2014)

Josephine Louise Newcomb Award, staff appreciation award at Newcomb College Institute (2013)

Imagine Cup US Finals, 3rd place, Software Design Competition (2010)

SERVICE & COMMUNITY ENGAGEMENT

Reviewer, Frontiers in Physics: Interdisciplinary Physics, Behavioral Research Methods, and Journal of Cognitive Systems Research

Mentor, More Active Girls in Computing 2012 - present

Mentor, NREIP 2023 Fall Mentorship Program, October - December 2023

Local Chair, CHI 2022 Annual Conference

Vice President, New Orleans Women in Technology, September 2013 - September 2017

Mentor, Tulane Digital Research Internship Program, Fall 2018 - Spring 2020

Local Coordinator, Women in Machine Learning Meetup at ICLR, Spring 2019

Career Development Officer, Tulane Women in Science & Engineering, January 2017 - May 2019

Student Volunteer, AAAI 2019

Student Representative, Tulane Graduate Council, August 2017 - May 2018

Computer Science Representative, Graduate Studies Student Association, August 2015 - May 2018

Graduate Community-Engaged Fellowship, Tulane University, February 2016 - November 2016

Adviser, Tulane Women in Technology, January 2013 - August 2016

Organization Coordinator, GHC14 Open Source Day Committee, May 2014 - October 2014