

# Jaelle Scheuerman

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## EDUCATION

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### 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

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

## RESEARCH

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### Computer Scientist

*Center for Geospatial Sciences, Naval Research Lab*

May 2020 - present

### Research Assistant

*Center for Geospatial Sciences, Naval Research Lab*

September 2016 - May 2020

### Research Assistant

*Department of Computer Science, Tulane University*

August 2015 - May 2020

### Undergraduate Research Assistant

*South Dakota School of Mines & Technology*

November 2008 - May 2010

## PUBLICATIONS & PRESENTATIONS

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### 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

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| <b>Instructor</b><br><i>Tulane University</i><br>· <i>Intro to Computer Science I</i>  | Fall 2018               |
| <b>Teaching Assistant</b><br><i>Tulane University</i><br>· <i>Intro to Computer Science I, Intro to Computer Science II, Intro to Algorithms, Software Studio</i><br>· Guest lectures for <i>Artificial Intelligence</i> course (including Algorithmic Game Theory, Constraint Satisfaction Problems, and Informed Search) | Fall 2015 - Spring 2017 |
| <b>Co-Instructor</b><br><i>Tulane University</i><br>· Computational Thinking for Work & Play, Fall 2014, Fall 2015   | Fall 2014, Fall 2015    |

## PROFESSIONAL

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|---|------------------------------|
| <b>Manager of Technology Initiatives</b><br><i>Newcomb College Institute, Tulane University</i> | July 2010 - August 2015      |
| <b>Web Developer</b><br><i>Linn Productions</i>   | November 2005 - October 2008 |
| <b>Web Designer</b><br><i>Site4Sure.com</i>   | May 2003 - August 2005       |