

Brent Harrison

Department of Computer Science
University of Kentucky

Professional Preparation

Auburn University	Auburn, AL	Computer Science	B.S.	2008
North Carolina State University	Raleigh, NC	Computer Science	M.S.	2012
North Carolina State University	Raleigh, NC	Computer Science	Ph.D.	2014

Appointments

Assistant Professor, Department of Computer Science, University of Kentucky, 2017–now.

Research Scientist, School of Interactive Computing, Georgia Institute of Technology, 2014–2017.

Recent Products

- Upol Ehsan, Pradyumna Tambwekar, Larry Chan, and Mark O. Riedl. (2018). Automated Rationale Generation: A Technique for Explainable AI and its Effects on Human Perceptions. In *Proceedings of the ACM Conference on Intelligent User Interfaces, to appear*.
- Kshitija Taywade, Judy Goldsmith, and Brent Harrison. (2018). Decentralized Multiagent Approach for Hedonic Games. In *Proceedings of the 2018 European Conference on Multiagent Systems (EUMAS)*.
- Brent Harrison, Upol Ehsan, and Mark O. Riedl. (2018). Guiding Reinforcement Learning Exploration Using Natural Language. In *Proceedings of the 2018 International Conference on Autonomous Agents and Multiagent Systems*.
- Upol Ehsan, Pradyumna Tambwekar, Larry Chan, Brent Harrison, and Mark O. Riedl. (2018). Learning to Generate Natural Language Rationales for Game Playing Agents. In *Proceedings of the Workshop on Experimental AI in Games (EXAG)*.
- Brent Harrison, Upol Ehsan, Larry Chan, and Mark O. Riedl. (2018). Rationalization: A Neural Machine Translation Approach to Generating Natural Language Explanations. In *Proceedings of the 1st Conference on AI, Ethics, and Society*.
- Lara J. Martin, Prithviraj Ammanabrolu, Xinyu Wang, William Hancock, Shruti Singh, Brent Harrison, and Mark O. Riedl. (2018) Event Representations for Automated Story Generation with Deep Neural Nets. In *Proceedings of the 2018 Conference of the Association for the Advancement of Artificial Intelligence (AAAI)*.
- Samantha Krening, Brent Harrison, Karen Feigh, Charles Isbell, Mark Riedl, and A. Thomaz. (2017). Learning from Explanations using Sentiment and Advice in RL. *IEEE Transactions on Cognitive and Developmental Systems*.
- Brent Harrison, Upol Ehsan, and Mark O. Riedl. (2017). Guiding Reinforcement Learning Exploration Using Natural Language. arXiv:1707.08616 [cs.AI].
URL: <https://arxiv.org/abs/1707.08616>.
- Brent Harrison, Christopher Purdy, and Mark O. Riedl. (2017). Toward Automated Story Generation with Markov Chain Monte Carlo Methods and Deep Neural Networks. In *Proceedings of the 2017 Workshop on Intelligent Narrative Technologies*.

- Lara J. Martin, Prithviraj Ammanabrolu, William Hancock, Shruti Singh, Brent Harrison, and Mark O. Riedl. (2017). Event Representations for Automated Story Generation with Deep Neural Nets. In *Proceedings of the KDD 2017 Workshop on Machine Learning for Creativity*.
- Lara J. Martin, Prithviraj Ammanabrolu, Xinyu Wang, Shruti Singh, Brent Harrison, Mur-taza Dhuliawala, Pradyumna Tambwekar, Animesh Mehta, Richa Arora, Nathan Dass, Chris Purdy, and Mark O. Riedl. (2017). Improvisational Storytelling Agents. In *Proceedings of the NIPS 2017 Workshop on Machine Learning for Creativity and Design*.

Activities in 2018

- Is co-PI on an NSF proposal titled *Learning from Stories: Practical Value Alignment and Taskability for Autonomous Systems* that was recommended for funding.
- Worked closely with Ph.D. students in preparation for their depth exams in the Spring semester of 2019 as well as their first publications.
- Professional service, including referee for IEEE Transactions on Games and program committee member for the International Joint Conference on Artificial Intelligence, the Foundation of Digital Games Conference, the AAAI conference on AI and Digital Interactive Entertainment, the workshop on Adaptive Learning Agents, the SAFEAI Workshop, and I served as a subreviewer for the conference on AI, Ethics, and Society.
- Developed graduate class on Sequential Decision Making.
- Served on the following thesis committees: Sagar Gandhi (Ph.D.), Chengxi Li (Ph.D.), Jonathan Watson (Ph.D.), Md Sultan al Nahian (Ph.D.), Roy Mobley (Ph.D.), Kshitija Taywade (Ph.D.), Timothy Schleuter (Ph.D.), Virgil Barnard (Ph.D.), Liu Liu (Ph.D.), Michael Huelsman (Ph.D.), David Blanton (Ph.D.), David Blanton (Ph.D.), Connor Greenwell (Ph.D.), Genghis Goodman (M.S.), John Bandy (M.S.), Austin Taing (M.S.), and Johnny Xu (M.S.)
- Began advising the following students: Chengxi Li (Ph.D.), Md Sultan al Nahian (Ph.D.), Roy Mobley (Ph.D. co-advising with Dr. Judy Goldsmith), Genghis Goodman (M.S.)