

RACHEL FARRELL

Narrative Intelligence Lab | Department of Computer Science | University of Kentucky
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INTERESTS

- Artificial Intelligence
- Interactive Narrative
- Automated Planning
- Multi-Agent Systems
- Computational Cognitive Science
- Formal Logic
- Natural Language Processing
- Computational Creativity

PROFESSIONAL EXPERIENCE

- Fall 2015 - Present Research Assistant
Narrative Intelligence Lab
Dept. of Computer Science, University of Kentucky, Lexington, KY
(Fall 2019 – Present)
Dept. of Computer Science, University of New Orleans, New Orleans, LA
(Fall 2015 – Summer 2019)
- Fall 2014 - Summer 2015 Research Assistant
Greater New Orleans Center for Information Assurance
Dept. of Computer Science, University of New Orleans, New Orleans, LA
- Summer 2011 Assistant Network Administrator
Dept. of Computer Science, University of Mississippi, Oxford, MS
- Fall 2010 - Spring 2011 Teaching Assistant
Dept. of Computer Science, University of Mississippi, Oxford, MS

EDUCATION

- Expected: 2021* *Doctor of Philosophy in Computer Science*
Lexington, KY, University of Kentucky
- *Advisor: Professor Stephen G. Ware*
- Fall 2014 - Spring 2017 Master of Science in Computer Science
New Orleans, LA, University of New Orleans
- *Thesis: Predicting User Choices in Interactive Narratives using Indexer's Pairwise Event Saliency Hypothesis*
 - *Advisor: Professor Stephen G. Ware*

Fall 2008 - Bachelor of Science in Computer Science
Spring 2012 Oxford, MS, University of Mississippi

- Summa Cum Laude
- Minor in Linguistics

PUBLICATIONS

Manuscripts are available at: <http://cs.uky.edu/~rfa237>

Journal Publications

1. **Rachelyn Farrell**, Stephen G. Ware, and Lewis J. Baker. "Manipulating Narrative Salience in Interactive Stories using Indexter". In *IEEE Transactions on Games*, vol. 12, no. 1, pp. 74-85, March 2020.

Conference Publications

2. **Rachelyn Farrell** and Stephen G. Ware. "Narrative Planning for Belief and Intention Recognition". In *Proceedings of the 16th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 52-58, 2020. (25% acceptance rate)
3. Stephen G. Ware, Edward T. Garcia, Alireza Shirvani, and **Rachelyn Farrell**. "Multi-Agent Narrative Experience Management as Story Graph Pruning". In *Proceedings of the 15th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 87-93, 2019. (25% acceptance rate)
4. Alireza Shirvani, **Rachelyn Farrell**, and Stephen G. Ware. "Combining Intentionality and Belief: Revisiting Believable Character Plans". In *Proceedings of the 14th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 222-228, 2018. (full paper presented as poster) 50% acceptance rate
5. Alireza Shirvani, Stephen G. Ware, and **Rachelyn Farrell**. "A Possible Worlds Model of Belief for State-Space Narrative Planning". In *Proceedings of the 13th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 101-107, 2017. (full paper) 25% acceptance rate
6. **Rachelyn Farrell** and Stephen G. Ware. "Causal Link Semantics for Narrative Planning using Numeric Fluents". In *Proceedings of the 13th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 193-199, 2017. (full paper presented as poster) 50% acceptance rate
7. **Rachelyn Farrell** and Stephen G. Ware. "Influencing User Choices in Interactive Narratives using Indexter's Pairwise Event Salience Hypothesis". In *Proceedings of the 13th International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 37-42, 2017. (full paper) 25% acceptance rate.
8. **Rachelyn Farrell** and Stephen G. Ware. "Predicting User Choices in Interactive Narratives using Indexter's Pairwise Event Salience Hypothesis". In *Proceedings of the 9th International Conference on Interactive Digital Storytelling*, pp. 147-155, 2016. (full paper) 36% acceptance rate

9. **Rachelyn Farrell**, Scott Robertson, and Stephen G. Ware. "Asking Hypothetical Questions about Stories using QUEST". In *Proceedings of the 9th International Conference on Interactive Digital Storytelling*, pp. 136-146, 2016. (full paper) 36% acceptance rate
10. **Rachelyn Farrell** and Stephen G. Ware. "Fast and Diverse Narrative Planning through Novelty Pruning". In *Proceedings of the 12th International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 37-43, 2016. (full paper) 28% acceptance rate

Symposium and Consortium Papers

11. **Rachelyn Farrell**. "Experience Management with Beliefs, Desires, and Intentions for Virtual Agents". In *Proceedings of the 14th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 290-292, 2018. (doctoral consortium paper)

Demonstrations

12. Ben Samuel, Aaron Reed, Emily Short, Samantha Heck, Barrie Robison, Landon Wright, Terence Soule, Mike Treanor, Joshua McCoy, Anne Sullivan, Alireza Shirvani, Edward T. Garcia, **Rachelyn Farrell**, Stephen Ware, Katherine Compton. "Playable Experiences at AIIDE 2018". In *Proceedings of the 14th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 275-280, 2018.

PROFESSIONAL SERVICE

Conference Program Committee

- AIIDE 2020: 16th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment, Worcester, MA (Virtual), October 2020 – Research Track
- FDG 2020: 15th International Conference on the Foundations of Digital Games, Malta, September 2020 – Game Artificial Intelligence track
- ICIDS 2019: 12th International Conference on Interactive Digital Storytelling, Snowbird, UT, November 2019 – Technologies track
 - Session Chair: *Authorship: Processes*

TEACHING EXPERIENCE

Lab Instructor

Fall 2010, CSCI 112: Java Programming 2
Spring 2011 University of Mississippi, Dept. of Computer Science

Guest Lectures

- October 2019 *Play Schemas: Games as Narrative Play; as the Play of Simulation; and as Social Play*
CSCI 485: Intro to Game Development
University of Kentucky, Dept. of Computer Science
- September 2018 *Play Schemas: Games as the Play of Meaning*
CSCI 4670/5670: Fundamentals of Game Development
University of New Orleans, Dept. of Computer Science
- March 2016 *Lisp Programming*
CSCI 4525/5525: Introduction to Artificial Intelligence
University of New Orleans, Dept. of Computer Science
- January 2016 *Adversarial Search*
CSCI 4525/5525: Introduction to Artificial Intelligence
University of New Orleans, Dept. of Computer Science

AWARDS AND HONORS

- Fall 2014 Privateer Graduate Scholarship Award
University of New Orleans
- Spring 2012 Outstanding Computer and Information Science Senior Award
University of Mississippi, Dept. of Computer Science
- Spring 2011 Outstanding Computer and Information Science Junior Award
University of Mississippi, Dept. of Computer Science
- Fall 2009 Computer Science Fall 2009 SAP Scholarship Award
University of Mississippi, Dept. of Computer Science
- Spring 2009 Freshman Student Achievement Award
University of Mississippi

PROFESSIONAL ORGANIZATIONS

Upsilon Pi Epsilon, International Honor Society for the Computing and Information Disciplines

Vice President, Mississippi Gamma Chapter, 2011-2012

Association for Computing Machinery

Member since 2010