RACHEL FARRELL

Ph.D. Candidate | Narrative Intelligence Lab | Dept. of Computer Science | Univ. of Kentucky
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INTERESTS

- Artificial Intelligence
- Interactive Narrative
- Multi-Agent Systems
- Planning
- Knowledge Representation and Reasoning
- Computational Creativity
- Cognitive Modeling
- Formal Logic
- Computational Linguistics
- Human-Computer Interaction
- Games

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: 2022
Doctor of Philosophy in Computer Science
Lexington, KY, University of Kentucky

- *Dissertation: Don't give me that story! – A human-centered framework for usable narrative planning*
- *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 Indexter's pairwise event salience hypothesis*
- Advisor: Professor Stephen G. Ware

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

- Summa Cum Laude
- Minor in Linguistics

PUBLICATIONS

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

Journal Publications

1. Stephen G. Ware, Edward Garcia, Mira Fisher, Alireza Shirvani, and Rachelyn Farrell. "Multi-agent narrative experience management as story graph pruning". In *IEEE Transactions on Games*, 2022. (forthcoming)

2. Rachelyn Farrell, Stephen G. Ware, and Lewis J. Baker. "Manipulating narrative salience in interactive stories using Indexter's pairwise event salience hypothesis". In *IEEE Transactions on Games, vol. 12, no. 1, pp. 74-85, March 2020.*

Conference Publications

3. Rachelyn Farrell, Mira Fisher, and Stephen G. Ware. "Salience vectors for measuring distance between stories". In *Proceedings of the 18th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, 2022. (forthcoming)

4. Stephen G. Ware and Rachelyn Farrell. "Salience as a narrative planning step cost function." In *Proceedings of the IEEE Conference on Games*, 2022. (forthcoming)

5. 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)

6. 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)

7. 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)

8. 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. (25% acceptance rate)

9. 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)

10. 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. (25% acceptance rate)

11. 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. (36% acceptance rate)

12. 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. (36% acceptance rate)

13. 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. (28% acceptance rate)

Symposium and Consortium Papers

14. 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

15. 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. Title: "Camelot: An Interactive Narrative Sandbox Environment".

PROFESSIONAL SERVICE

Conference Program Committee

- AIIDE 2021: 17th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment, Virtual, October 2021 – Artifact Evaluation Track

- AIIDE 2020: 16th AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment, Virtual, October 2020 – Research Track

- FDG 2020: 15th International Conference on the Foundations of Digital Games, Malta, September 2020 – Game AI 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, Spring 2011 — CSCI 112: Java Programming 2
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

Spring 2021	Thaddeus B. Curtz Memorial Scholarship University of Kentucky
Fall 2019	Computer Science 50th Anniversary 1-year Fellowship University of Kentucky
Fall 2014	Privateer Graduate Scholarship Award University of New Orleans
Spring 2012	Outstanding Computer and Information Science Senior Award University of Mississippi
Spring 2011	Outstanding Computer and Information Science Junior Award University of Mississippi
Fall 2009	Computer Science Fall 2009 SAP Scholarship Award University of Mississippi
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