

# RACHEL FARRELL

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

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- Artificial Intelligence
- Interactive Narrative
- Automated Planning
- Multi-Agent Systems
- Computational Creativity
- Cognitive Science & Psychology
- Formal Logic
- Linguistics

## PROFESSIONAL EXPERIENCE

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- 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

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- Expected: 2021*      *Doctor of Philosophy in Computer Science*  
*Lexington, KY, University of Kentucky*
- *Dissertation: Don't give me that story! – Human-centered narrative generation and summarization of possible stories*
  - *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 - Bachelor of Science in Computer Science  
Spring 2012 Oxford, MS, University of Mississippi

- Summa Cum Laude
- Minor in Linguistics

## PUBLICATIONS

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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 16<sup>th</sup> 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 15<sup>th</sup> 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 14<sup>th</sup> 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 13<sup>th</sup> 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 13<sup>th</sup> 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 13<sup>th</sup> 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 Indexer's Pairwise Event Saliency Hypothesis". In *Proceedings of the 9<sup>th</sup> 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 9<sup>th</sup> 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 12<sup>th</sup> 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 14<sup>th</sup> 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 14<sup>th</sup> AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment*, pp. 275-280, 2018.

## PROFESSIONAL SERVICE

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### Conference Program Committee

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

## TEACHING EXPERIENCE

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### 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        *Play Schemas: Games as the Play of Meaning*  
2018                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

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Spring 2021        Thaddeus B. Curtz Memorial Scholarship  
University of Kentucky

Fall 2019            Computer Science 50<sup>th</sup> 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

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### **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