CS7943-001: Games Research Seminar

Syllabus
Fall 2018
Fridays / 01:00PM - 2:00PM (MT)
WEB (Warnock Engineering Building), Room 1450

Overview

The Fall 2018 offering of the Computational Games Research Seminar will primarily focus on reading and discussing papers published in the journal *IEEE Transactions on Games* (née *IEEE Transactions on Computational Intelligence and AI in Games*). The selected papers will cover computational techniques from artificial intelligence and affine disciplines that advance a research agenda related to game design and development.

Instructors

Rogelio E. Cardona-Rivera
Email: rogelio@cs.utah.edu
Office: MEB #3450 and Building 72 #214
Office Hours: TBD and by appointment

Course Website

https://utah.instructure.com/courses/498763

Textbooks

None. All assigned readings will either be made available by the instructor or by the university library.

Prerequisites

Graduate Standing in the School of Computing / Entertainment Arts and Engineering Program, or permission of the instructor.

Examinations

None.

Grading

Pass / Fail.

Seminar Objectives

1. Review of state-of-the-art research projects that explore scientific, technical, and engineering aspects of games.

Expected Learning Outcomes

Upon successful completion of this seminar, a student will be able to:

1. Identify ongoing issues and debates surrounding the design and development of video games.

Absence Policy

- Students are expected to be present in the seminar. The instructor will call roll throughout the semester. You may have an unexcused absence for one of those roll calls without penalty. Further unexcused absences may result in a failing grade due to the compressed nature of the seminar schedule.
- All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion.
- Absences pre-approved by the instructor will be honored; documented medical excuses or other excused absences will not adversely affect grades.
- Conference travel or other scholarly duties discussed well in advance of a missed session may be excused at the discretion of the instructor.

Cheating Policy

- Every student is responsible for their own work.
- Cite references and other classmates if help is received from either.
- Follow the Student Code of Academic Integrity.

Students With Disabilities

The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you need accommodations in a class, reasonable prior notice needs to be given to the instructor and to the Center for Disability Services, 162 Olpin Union, 581-5020 (V/TDD) to make arrangements for accommodations. All written information in a course can be made available in alternative format with prior notification to the Center for Disability Services.

If you anticipate issues related to the format or requirements of this course, please meet with us. We would like us to discuss ways to ensure your full participation in the course.

Credit

Students may enroll for one (1) credit. Although the University lists the course as "variable credit," the two- and three-credit options are not currently available.

College of Engineering Semester Guidelines

The College of Engineering Semester Guidelines contain important dates regarding adding, dropping and withdrawing from classes as well as the College Policy regarding repeating courses.

To consult the guidelines, go to: https://www.coe.utah.edu/semester-guidelines

School of Computing Policies and Guidelines

The School of Computing Policies and Guidelines represent important information that students taking courses in, or seeking degrees from, the School of Computing, must be aware of. It is important that you read, understand, and adhere to this information. To consult the policies and guidelines, go to: http://www.cs.utah.edu/socguidelines/

Students are responsible for the information contained therein.

Schedule

The schedule is subject to change. The official schedule will be kept on the course webpage, and will be updated periodically to reflect changes as the semester progresses. It is the student's responsibility to check the schedule regularly for changes. The instructor will communicate any changes in deadlines to students in a timely manner via email and/or announcements in class.

Note, it is the student's responsibility to check their official email address at least once daily and to come to class. Failure to do so does not excuse missed deadlines.

Students enrolled in the seminar are expected to read the papers prior to the seminar. Additionally, students are expected to sign up to lead the discussion on one or more seminar meeting. Leading the discussion means:

1. Choosing a paper and e-mailing the instructors which paper they have chosen to present before 11:59pm (MT) on the Monday prior to that week's presentation;

2. Preparing a presentation (15-20 minutes) that summarizes the paper and its pertinent points;

3. Familiarizing yourself enough with the paper to be able to answer questions that may come up;

4. Preparing potential discussion points if the discussion needs prompting.

Week	Date	Topics	Presenter
1	Friday, Aug. 24th	Overview of Seminar: Objectives, Outcomes, and How to Read a Paper	Instructor
2	Friday, Aug. 31st	Alex Zook and Mark Riedl. "Learning How Design Choices Impact Gameplay Behavior." *IEEE Transactions on Games* (2018): forthcoming.	TBD
3	Friday, Sep. 7th	Levi H. S. Lelis, Willian M. P. Reis, and Ya'akov (Kobi) Gal. "Procedural Generation of Game Maps with Human-in-the-Loop Algorithms ." *IEEE Transactions on Games* (2018): forthcoming.	TBD
4	Friday, Sep. 14th	Michele Colledanchise, Ramviyas Parasuraman, Petter Ögren. "Learning of Behavior Trees for Autonomous Agents." *IEEE Transactions on Games* (2018): forthcoming.	TBD
5	Friday, Sep. 21st	Maurice Hendrix, Tyrone Bellamy-Wood, Victoria Bloom, Ian Dunwell. "Implementing Adaptive Game Difficulty Balancing in Serious Games." *IEEE Transactions on Games* (2018): forthcoming.	TBD
6	Friday, Sep. 28th	Xenija Neufeld, Sanaz Mostaghim, Dario L. Sancho-Pradel, Sandy Brand. "Building a Planner: A Survey of Planning Systems Used in Commercial Video Games." *IEEE Transactions on Games* (2018): forthcoming.	TBD
7	Friday, Oct. 5th	Ricardo Lopes, Elmar Eisemann, and Rafael Bidarra. "Authoring Adaptive Game World Generation." *IEEE Transactions on Games* 10, no. 1 (2018): 42-55.	TBD
8	Friday, Oct. 12th	Fall Break (No Seminar)	
9	Friday, Oct. 19th	Franco D. Berdun, Marcelo G. Armentano, and Analía Amandi. "Modeling Users Collaborative Behavior with a Serious Game." *IEEE Transactions on Games* (2018): forthcoming.	TBD
10	Friday, Oct. 26th	Michael Cook, Simon Colton, and Jeremy Gow. "The ANGELINA Videogame Design System, Part I." *IEEE Transactions on Computational Intelligence and AI in Games* 9, no. 2 (2017): 192-203.	TBD
11	Friday, Nov. 2nd	Adam Summerville, Chris Martens, Sarah Harmon, Michael Mateas, Joseph Osborn, Noah Wardrip-Fruin, and Arnav Jhala. "From Mechanics to Meaning." *IEEE Transactions on Computational Intelligence and AI in Games, Special Issue on AI-based and AI-assisted Game Design* (2018): forthcoming.	TBD

12	Friday, Nov. 9th	Justus Robertson and R. Michael Young. "Perceptual Experience Management." *IEEE Transactions on Games* (2018): forthcoming.	TBD
13	Friday, Nov. 16th	Instructor on travel to the AAAI Conference on AI and Interactive Digital Entertainment (No Class)	
14	Friday, Nov. 23rd	Thanksgiving Break (No Class)	TBD
15	Friday, Nov. 30th	Christoffer Holmgård, Michael Cerny Green, Antonios Liapis, Julian Togelius. "Automated Playtesting with Procedural Personas through MCTS with Evolved Heuristics." *IEEE Transactions on Games* (2018): forthcoming.	TBD
16	Friday, Dec. 7th	Census Day (No Class)	TBD