AI INSTITUTE #AIISC
UNIVERSITY OF SOUTH CAROLINA

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CSCE 580: Introduction to AI
CSCE 581: Trusted AI

Lecture 26: Graduate Student Presentations

PROF. BIPLAV SRIVASTAVA, AI INSTITUTE

21ST NOV, 2024

Carolinian Creed: "I will practice personal and academic integrity."

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Organization of Lecture 26

- Introduction Segment
  - Recap of Lecture 25
- Main Segment
  - Student Paper Presentations
- Concluding Segment
  - Course Project Discussion
  - About Next Lecture – Lecture 27
  - Ask me anything

Introduction Section

Recap of Lecture 25

- Topic discussed
  - Planning
  - Uncertainty
  - Reinforcement Learning

Student Assessment

A = [920-1000]
B+ = [870-919]
B = [820-869]
C+ = [770-819]
C = [720-769]
D+ = [670-719]
D = [600-669]
F = [0-599]

Tests	Undergrad	Grad
Course Project – report, in-class presentation	600	600
Quiz – best of 3 from 4	400 (~~200~~)	300 (~~200~~)
~~Final Exam~~	~~200~~	~~100~~
Additional Final Exam – Paper summary, in-class presentation		100
Total	1000 points	1000 points

Bonus and Penalties

- Bonus
  - Quiz 3: 10% for on-time submission
  - Quiz 4: 10% for on-time submission
- Penalty
  - Absenteeism: -20 (>2 - <= 6 unexcused absences)
  - Extreme Absenteeism: -60, i.e., 1 grade below (>6 unexcused absences)

Where We Are in the Course

CSCE 580/ 581 – In This Course

- Week 1: Introduction, Aim: Chatbot / Intelligence Agent
- Weeks 2-3: Data: Formats, Representation and the Trust Problem
- Week 4-5: Search, Heuristics - Decision Making
- Week 6: Constraints, Optimization – Decision Making
- Week 7: Classical Machine Learning – Decision Making, Explanation
- Week 8: Machine Learning - Classification
- Week 9: Machine Learning - Classification – Trust Issues and Mitigation Methods
- Topic 10: Learning neural network, deep learning, Adversarial attacks
- Week 11: Large Language Models – Representation, Issues
- Topic 12: Markov Decision Processes, Hidden Markov models - Decision making
- Topic 13: Planning, Reinforcement Learning – Sequential decision making
- Week 14: AI for Real World: Tools, Emerging Standards and Laws; Safe AI/ Chatbots

Main Section

Presenters – Graduate Students

- Present paper 1-by-1
- Stay within 5 minutes
- After presentation, write your comments about the paper by Dec 5, 2024
  - What to have in the report – minimum 1 page per paper (<500 words).
    - Paper summary
    - Key contributions
    - Your critique about the paper.
    - A running example, if applicable

Audience - Undergraduates

- Hear all paper presentations
- Enter survey (vote) for the paper you liked the most, after all the presentations
- Give inputs
  - How much you liked the presentation
  - What you liked about the paper
  - What you liked about the presentation

Course Project

Lecture 26: Summary

- We talked about
  - Graduate paper readings

Concluding Section

About Next Lecture – Lecture 27

Lecture 27: AI in the Real World

- Solving problems
  - What to focus on
  - Selecting methods and evaluation
  - Practical considerations
- Case studies

22	Nov 7 (Th)	Making Decisions - Simple
23	Nov 12 (Tu)	Making Decisions - Complex
24	Nov 14 (Th)	Sequential Decision Making: Planning, RL
25	Nov 19 (Tu)	Sequential Decision Making: Planning, RL
26	Nov 21 (Th)	Paper presentation (grad students only)
	Nov 26 (Tu)	Thanksgiving Holiday
	Nov 28 (Tu)	Thanksgiving Holiday
27	Dec 3 (Tu)	Project presentation
28	Dec 5 (Th)	Project presentation AI for the Real World – Bringing All Together;
	Dec 7 (Sa)	
29	Dec 10 (Tu)	Open Ended Discussion (4pm – Examination)