

## *CSCE 580: Introduction to AI*

### Week 8 - Lecture 15: Quiz 2 – In class

---

PROF. BIPLAV SRIVASTAVA, AI INSTITUTE

7<sup>TH</sup> OCT 2025

**Carolinian Creed: “I will practice personal and academic integrity.”**

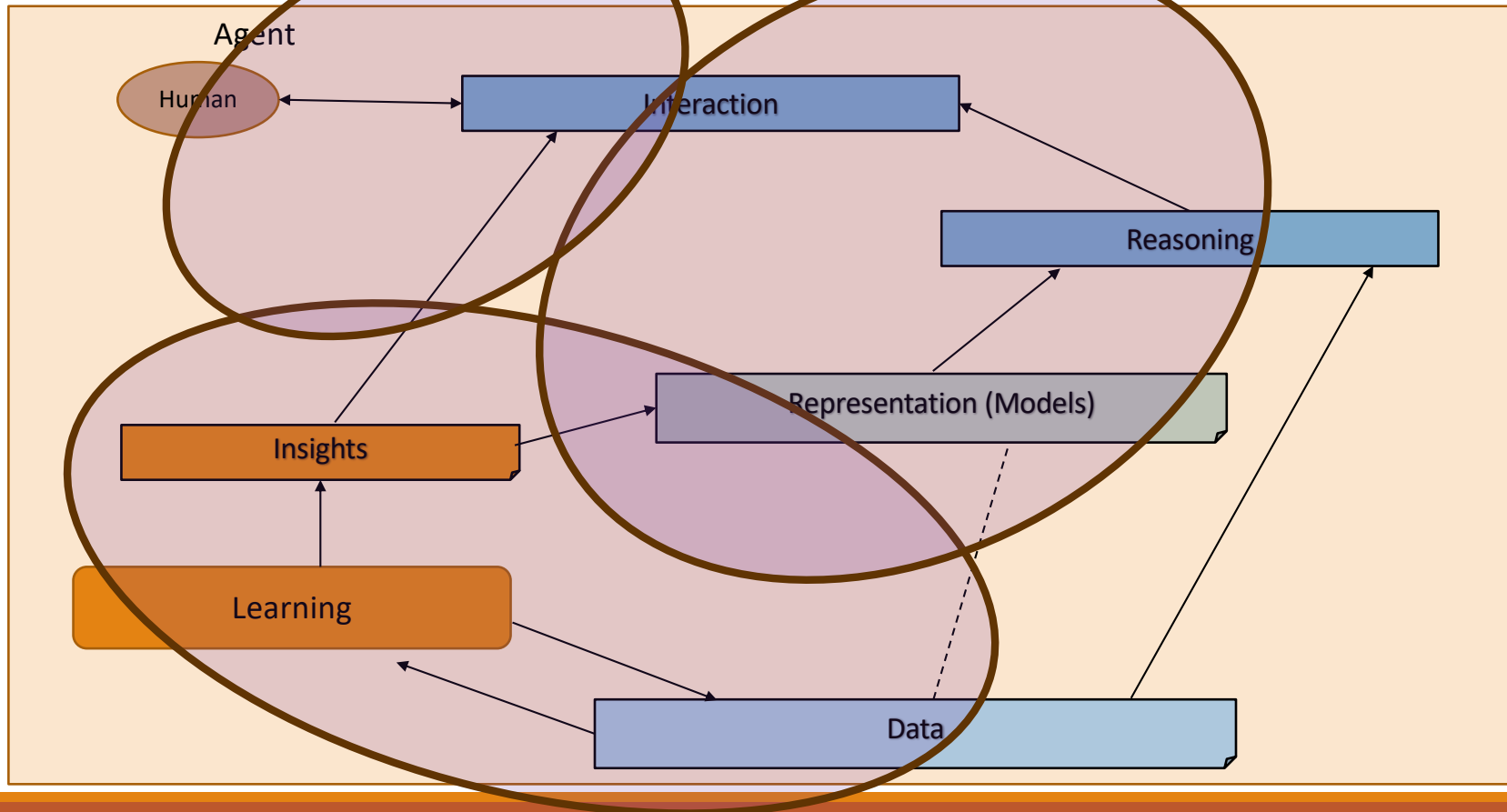
**Credits: Copyrights of all material reused acknowledged**

# Organization of Week 7 - Lectures 15

---

- Introduction Section
  - Recap from Week 7 (Lectures 13 and 14)
- Main Section
  - Quiz 2
- Concluding Section
  - About next week – W9: Lectures 16, 17
  - Ask me anything

## Relationship Between Main AI Topics (Covered in Course)



# Recap of Week 8

## We talked about

- First-order logic
- Search based solving
- Examples
- Uninformed search

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

# Upcoming Evaluation Milestones

---

- Projects B: Sep 30 – Nov 20
- Quiz 2: Oct 7
- Quiz 3: Nov 11
- Paper presentation (grad students only) : Nov 18
- Finals: Dec 11

# AI News

---

# Introduction Section

---

# Main Section

---



# Quiz 2 – In-class

---

# Lecture 15: Summary

---

- We discussed
  - Quiz 2

# Week 8: Concluding Comments

We discussed about

- Quiz 2
- Fall Break

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

## Projects B: Sep 30 – Nov 20 (7 weeks; 400 points)

---

- End date: **Thursday, Nov 20**
  - Remember to update spreadsheet on data/ time when finished (**Column I**)
- Choices
  - Given by instructor
  - Defined by student using project-b teampate; reviewed and approved by instructor

# Upcoming Evaluation Milestones

---

- Projects B: Sep 30 – Nov 20
- Quiz 2: Oct 7
- Quiz 3: Nov 11
- Paper presentation (grad students only) : Nov 18
- Finals: Dec 11

# About Week 9 – Lectures 16, 17

---

# Week 8 – Lecture 16, 17

- Lecture 16: Informed Search
  - Heuristic search
  - Optimal solutions
- Lecture 17: Local Search

- Week 1: Introduction, Aim: Chatbot / Intelligence Agent
- Weeks 2: Data: Formats, Representation, ML Basics
- Week 3: Machine Learning – Supervised (Classification)
- Week 4: Machine Learning - Unsupervised (Clustering) –
- Topic 5: Learning neural network, deep learning, Adversarial attacks
- Week 6: Large Language Models – Representation and Usage issues
- Weeks 7-8: Search, Heuristics - Decision Making
- Week 9: Constraints, Optimization – Decision Making
- Topic 10: Markov Decision Processes, Hidden Markov models -  
Decision making
- Topic 11-12: Planning, Reinforcement Learning – Sequential decision making
- Week 13: Trustworthy Decision Making: Explanation, AI testing
- Week 14: AI for Real World: Tools, Emerging Standards and Laws; Safe AI/ Chatbots

**Note:** exact schedule changes slightly to accommodate for exams and holidays.