CAP6938-02
Plan, Activity, and Intent Recognition

Review of Exam

Instructor: Dr. Gita Sukthankar
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Schedule: T & Th 1:30-2:45pm
Location: CL1 212
Office Hours (HEC 232):
T 3-4:30pm, Th 10-11:30am
Event Hierarchy Circumscription

Exhaustiveness:
Known ways of specializing an event type are the only ways to specialize it

Abstraction hierarchy (light grey arrows)
PSDG Grammar

- Representation has 3 parts
  - Productions
  - Hidden state (q)
  - Probabilities of executing productions conditioned on q
- Action selection occurs by randomly choosing a production based on the current q and the probability table.
- Strengths/weaknesses:
  - Strength: representation can be compact
  - Weakness: can be difficult to program
Complete Plan Recognition

- Complete: admit all recognition hypotheses consistent with the history of observations
Marginalization

- When marginalizing remember to multiple each term in the summation by the appropriate prior:

- Example
  - \( P(C=1, W=0) = P(C=1|W=0) \times P(W=0) \)