CS344M
Autonomous Multiagent Systems
Spring 2008

Prof: Peter Stone

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The University of Texas at Austin
Good Afternoon, Colleagues

Are there any questions?
Logistics

- Next week’s readings posted
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• Guest lecture on Tuesday — Ben Kuipers
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- Holte talk today at 2pm
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- Use the undergrad writing center!
Final Projects

Proposal (2/28): 3+ pages
• What you’re going to do; graded on writing

Progress Report (4/3): 5+ pages + binaries + logs
• What you’ve been doing; graded on writing

Team (4/29): source + binaries
• The tournament entry; make sure it runs!

Final Report (5/1): 8+ pages
• A term paper; the main component of your grade

Tournament (5/7): nothing due
• Oral presentation

Due at beginning of classes
Overview of the Readings

**Darwin:** genetic programming approach
Overview of the Readings

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Stone and McAllester: Architecture for action selection
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Riley: Coach competition, extracting models
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**Kuhlmann:** Learning for coaching
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Kok03: Coordination graphs
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Kuhlmann: Learning for coaching

Kok03: Coordination graphs

Riedmiller05: Reinforcement learning
Evolutionary Computation

- Motivated by biological evolution: GA, GP
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- Search through a space
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  - Need a representation, fitness function
  - Probabilistically apply search operators to set of points in search space
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- Randomized, parallel hill-climbing through space
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- Learning is an optimization problem (fitness)
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Some slides from *Machine Learning* (Mitchell, 1997)
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- 1-1-1 record. Tied a good team, but didn’t advance
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- Success of the method, but not pursued
Class Discussion

Jose Falcon on automated commentary