Integrating Planning and Reinforcement Learning —

Harsha Kokel
Research Scientist
IBM Research
Reinforcement Learning

Planning

Long and Fox (2002)
Planning

• Search through space of states
• Relies on an explicit model of the environment

RL

• Search through space of policies
• Relies on trial & error by interaction
Köhler (1948)
Integrating Planning and RL

knowledge

Planner

high-level plan

initial state & task

Environment

State, Reward

action
Integrating Planning and RL

knowledge  ↷  Planner

initial state & goal

Environment

State, Reward

action

high-level plan
Thank You