AAAI 2013 Spring Symposium on Lifelong Machine Learning

Monday, March 25, 2013

9:00 – 9:15 Opening and Welcome
Eric Eaton, Bryn Mawr College (Chair)

9:15 – 10:30 Invited Talk: Rich Sutton, U. Alberta

10:30 – 11:00 *Coffee break*

11:00 – 12:00 Paper Presentations

Lifelong Machine Learning Systems: Beyond Learning Algorithms
Daniel Silver, Qiang Yang & Lianghao Li

Information-Theoretic Objective Functions for Lifelong Learning
Byoung-Tak Zhang

Towards Pareto Descent Directions in Sampling Experts for Multiple Tasks in an Online Learning Paradigm
Shaona Ghosh, Chris Lovell & Steve Gunn

12:00 – 12:30 Discussion

12:30 – 2:00 *Lunch break*

2:00 – 3:10 Invited Talk: Jeff Dean, Google
Large-Scale Learning from Multimodal Data

3:10 – 3:30 Paper Presentation

Learning Sensorimotor Concepts Without Reinforcement
Yasser Mohammad and Toyoaki Nishida

3:30 – 4:00 *Coffee break*

4:00 – 5:00 Paper Presentations

Online Object Representation Learning and Its Application to Object Tracking
Amirreza Shaban, Hamid R. Rabiee, Mehrdad Farajtabar & Mohsen Fadaee

Organizing Behavior into Temporal and Spatial Neighborhoods
Mark Ring & Tom Schaul

Autonomous Selection of Inter-Task Mappings in Transfer Learning
Anestis Fachantidis, Ioannis Partalas, Matthew E. Taylor & Ioannis Vlahavas

5:00 – 5:30 Discussion

5:30 – 6:00 *Break*

6:00 – 7:00 Reception

Tuesday, March 26, 2013

9:00 – 10:00 Invited Talk: Paul Ruvolo, Bryn Mawr
Efficient Lifelong Machine Learning

10:00 – 10:30 Emerging Applications

A Feedback-enabled Machine Learning Approach for Multi-Engine Machine Translation (Short Paper)
Christian Federmann

Applications of Lifelong Learning to the Google Knowledge Graph
Terran Lane

10:30 – 11:00 *Coffee break*

11:00 – 12:00 Paper Presentations

Lifelong Learning of Structure in the Space of Policies
Majd Hawasly & Subramanian Ramamoorthy

Automatic Abstraction in Reinforcement Learning Using Ant System Algorithm
Nasrin Taghizadeh, Mohsen Ghafoorin & Hamid Beigy

Hashing for Lightweight Episodic Recall
Scott Wallace, Evan Dickinson & Andrew Nuxoll

12:00 – 12:30 Discussion

12:30 – 2:00 *Lunch break*

2:00 – 2:10 Paper Presentation

The Consolidation of Task Knowledge for Lifelong Machine Learning (Short Paper)
Daniel Silver

2:10 – 3:10 Invited Talk: Matthew Taylor, Washington State University
Agents as Teachers and Learners

3:10 – 3:30 Organization of Working Sessions

3:30 – 4:00 *Coffee break*

4:00 – 5:30 Working Sessions

5:30 – 6:00 *Break*

6:00 – 7:00 Plenary Session

Wednesday, March 27, 2013

9:00 – 10:30 Reports by Working Session Leaders
Discussion

10:30 – 11:00 *Coffee break*

11:00 – 12:30 Open discussion: Next steps toward lifelong machine learning