Workshops at the Third Annual Conference on Advances in Cognitive Systems
Thursday, May 28, 2015

Workshop on Goal Reasoning
Chair: David Aha
TSRB 134
Please see http://www.cc.gatech.edu/~svattam/goal-reasoning/ for details.

NSF Sponsored Students of Cognitive Systems Workshop
Chairs: Maria Chang, Shiwali Mohan and Bryan Wiltgen
GVU Café (2nd Floor TSRB)
Please see http://www.cogsys.org/2015-student-workshop for details.

Third Annual Conference on Advances in Cognitive Systems
Day I, Friday, May 29, 2015 – TSRB Auditorium

Time	Authors/Presenters	Title
8:30 AM	Registration (TSRB auditorium area)	
9:00 AM	Ashok Goel, Mark Riedl, & Alan Wagner	Welcome, introductions, and opening remarks
	Session 1 (Chair: Kenneth Forbus)	
9:30 AM	*Invited talk:* **Yolanda Gil**	The Human Bottleneck in Data Analytics: Opportunities for Cognitive Systems in Automating Scientific Discovery
10:30 AM	Refreshments (TSRB auditorium area)	
	Session 2: Concept Formation (Chair: John Laird)	
11:00 AM	Christopher MacLellan, Erik Harpstead, Vincent Aleven, and Kenneth Koedinger	TRESTLE: Incremental Learning in Structured Domains Using Partial Matching and Categorization
11:25 AM	Wei Peng and John Gero	Situated Concept Formation from Interactions: An Implementable Constructive Memory Model
11:50 AM	Tarek Besold and Ute Schmid	The Artificial Jack of All Trades: The Importance of Generality in Approaches to Human-Level Intelligence by
12:15 PM	Buffet lunch (TSRB 132)	
	Session 3: Visual Thinking (Chair: Sergei Nirenburg)	
1:30 PM	Maithilee Kunda	Computational Mental Imagery, and Visual Mechanisms for Maintaing a Goal-Subgoal Hierarchy
1:55 PM	Jigar Doshi, Zsolt Kira, and Alan Wagner	From Deep Learning to Episodic Memories: Creating Categories of Visual Experiences
2:20 PM	Maithilee Kunda and Julia Ting	Looking Around the Mind's Eye: How Internal Deployments of Attention Can Affect Visual Search Performance
2:45 PM	Refreshments (TSRB auditorium area)	
	Session 4: Qualitative/Quantitative reasoning (Chair: Pat Langley)	
3:15 PM	Kazjon Grace and Mary Lou Maher	Surprise and Reformuation as Metacognitive Processes in Creative Design
3:40 PM	Brayn Wiltgen and Ashok Goel	SBFCalc: Supporting Conceptual Design through Constrained Model Simulation
4:05 PM	Adam Arvay and Pat Langley	Heuristic Adaptation of Rate-Based Process Models
4:30 PM	Timoth Wiley, Claude Sammut, Bernhard Hengst, and Ivan Bratko	A Multistrategy Architecture for On-Line Learning of Robotics Behaviors Using Qualitative Reasoning
6:00 PM	**Microsoft Conference Reception** (TSRB 132 and 133)	
	Conference posters (open all conference, TSRB auditorium area)	
	Goal Reasoning Workshop posters (open only during this session, TSRB 132)	
	Student Workshop posters (open only during this session, TSRB 133)	
	Georgia Tech cognitive systems posters (open only during the Microsoft reception, TSRB 132/133)	
8:00 PM	Day ends	

Third Annual Conference on Advances in Cognitive Systems
Day II, Saturday, May 30, 2015 - TSRB Auditorium

Time	Authors/Presenters	Title
8:45 AM	Registration (TSRB auditorium area)	
9:00 AM	Announcements	
	Session 5 (Chair: Douglas Fisher)	
9:05 AM	*Invited talk:* **Michael Anderson**	Using Structure Where You Find It: Symbol Systems in Multi-Step Cognition
10:05 AM	Simon Stoilkovokj, Ivan Bratko, and Matej Guid	A Computational Model for Estimating the Difficulty of Chess Problems
10:30 AM	Refreshments (TSRB auditorium area)	
	Session 6: Agents (Chair: Elizabeth Whitaker)	
11:00 AM	Matthew Molineaux and David Aha	Continuous Explanation Generation in Multi-Agent Domains
11:25 AM	Katherine Metcalf and David Leake	Automated Identification of Relative Social Power
11:50 AM	Yasaman Abbasi, Martin Short, Arunesh Sinha, Nicole Sintov, Chao Zhang, and Milind Tambe	Human Adversaries in Opportunistic Crime Security Games: Evaluating Competing Bounded Rationality Models
12:15 PM	Buffet lunch (TSRB 132)	
	Session 7 (Chair: Ashok Goel)	
1:30 PM	*Panel on Education in Cognitive Systems* (Douglas Fisher, Ashok Goel, Patrick Winston)	
2:30 PM	Refreshments (TSRB auditorium area)	
	Session 8: Language (Chair: William Underwood)	
3:00 PM	Marjorie McShane	Expectation-Driven Treatment of Difficult Referring Expressions
3:25 PM	David Barbella and Kenneth Forbus	Exploiting Connectivity for Case Construction in Learning by Reading
3:50 PM	Aditya Kalyanpur and J. William Murdock	Unsupervised Entity-Relation Analysis in IBM Watson
4:15 PM	Christopher Geib	Lexicalized Reasoning
5:30 PM	Conference dinner (TSRB 132 and 133)	
	Session 9 (Chair: David Aha)	
6:00 PM	*Invited Talk:* **Hector Munoz-Avila (TSRB 132 and 133)**	
7:30 PM	Day ends	

Third Annual Conference on Advances in Cognitive Systems
Day III, Sunday, May 31, 2015 - TSRB Auditorium

Time	Authors/Presenter	Title
8:55 AM	Registration	
9:00 AM	Announcements	
	Session 10 (Chair: Mark Riedl)	
9:05 AM	*Invited talk:* **Patrick Winston**	Getting Beyond the Shadows on the Wall
10:05 AM	Boyang Li	A Dynamic and Dual-Process Theory of Humor
10:30 AM	Refreshments (TSRB auditorium area)	
	Session 11: Planning and Search (Chair: Alan Wagner)	
11:00 AM	Ron Alford, Hayley Borck, Justin Karneeb, and David Aha	Active Behavior Recognition in Beyond Visual Range Air Combat
11:25 AM	Son To, Pat Langley, and Dongkyu Choi	A Unified Framework for Knowledge-Lean and Knowledge-Rich Planning
11:50 AM	Thomas Hinrichs and Kenneth Forbus	Qualitative Models for Strategic Planning
12:15 PM	Boxed lunch (TSRB auditorium area)	
1:00 PM	Day ends	