RAISE 2013

2nd International NSF sponsored Workshop on Realizing Artificial Intelligence Synergies in Software Engineering
May 25-26, 2013. In Conjunction with ICSE'13
http://promisedata.org/raise/2013

This workshop continues work began at RAISE 2012, see http://goo.gl/lzTwA .

This workshop brings together researchers and industrial practitioners to exchange and discuss the latest innovative synergistic AI and SE techniques and practices. Software engineering is now expected to solve a plethora of increasingly complex questions that are dynamic, automated, adaptive, or must execute on a very large scale. In theory, other disciplines could better support SE. For example, AI technologies can support the development of increasingly complex SE systems. Conversely, in theory, SE might also play a role in alleviating development costs and the development effort associated with AI tools. In practice, this theoretical connection between SE and AI is rarely achieved. We believe that SE has much to offer AI about systems engineering and scalability of methodologies. Yet AI research rarely uses this work. All this begs the question:

> *Are SE and AI researchers ignoring important insights from AI and SE?*

To answer this question, RAISE '13 will be a crossover workshop where the state of the art in both fields is documented and extended. This workshop will explore not only the application of AI techniques to software engineering problems but also the application of software engineering techniques to AI problems.

DAY 1: STATE OF THE ART	DAY 2: OVER THE HORIZON
The first day of the workshop is for positions statements that review current state of the art results. Papers accepted to day1 will be archival publications published in the ICSE proceedings. Day1 papers will be presented in standard conference format (15 minute presentations).	Day two will look "over the horizon" for discover future directions. Day2 papers will be short (3 page) vision statements, seen only by workshop attendees, presented in brainstorming sessions (5 minute lightning round in the morning; discussed in breakout groups in the afternoon)

Topics of interest

Prospective participants should submit either a state of the art position statement describing late-breaking research results or a research vision statement on one or more of the following perspectives.

1. Improving SE through AI – including but not limited to knowledge acquisition, knowledge representation, reasoning, agents, machine learning, machine-human interaction, planning and search, natural language understanding, problem solving and decision-making, understanding and automation of human cognitive tasks, AI programming languages, reasoning about uncertainty, new logics, statistical reasoning, etc.

2. Applying AI to SE activities – including but not limited to requirements, design, specification, traceability, program understanding, model-driven development, testing and quality assurance, domain-specific software engineering, adaptive systems, software evolution, etc.

3. SE for AI – including but not limited to AI programming languages, program derivation techniques in AI domains, platforms and programmability, software architectures, rapid prototyping and scripting for AI techniques, software engineering infrastructure for reflective and self-sustaining systems, etc.

Important Dates

Paper submission: **7 Feb 2013**
Notification of acceptance: **28 Feb 2013**
Camera ready paper: **7 March 2013**
Workshop date: **25-26 May 2013**

Workshop Steering Committee

Rachel Harrison, Oxford Brookes University, UK
Sol Greenspan, NSF, USA,
Tim Menzies, West Virginia University, USA
Pedro Henriques, University of Minho, Portugal,
Marjan Mernik, University of Maribor, Slovenia,
Daniel Rodriguez, University of Alcala, Spain,
Daniela da Cruz, University of Minho, Portugal

Keynotes

Tao Xie, North Carolina State University, USA
John Clark, University of York, UK

Publicity Chair

Burak Turhan, University of Oulu, Finland

Submission

Submit papers, in PDF format, to
https://www.easychair.org/conferences/?conf=raise13.
On submission, indicate if the paper is:

- A 5 to 7 page position statement for day 1 that reviews state of the art results. Such papers are intended to be archival publications for publication in the ICSE proceedings. If accepted, they will be presented in 15 minute sessions.
- Or A 2-3 page vision statement for day 2 (circulated only to workshop participates. If accepted, these will be presented in 5 minute sessions to stimulate discussion about a strategic research roadmap.

Position statement papers must not be published or under review elsewhere. Format using IEEE Formatting Guidelines (http://goo.gl/DVKLY); length not exceed the above page limits; all submissions to be in English.

Authors of position papers will be invited to submit extended versions to an ASE journal special issue.

Programme Committee

Jeremy Bradbury, Uni. Ontario, CA
John Clark, Uni. York, UK
Daniela da Cruz, Uni of Minho, Portugal
Jim Davies, Oxford Uni, UK
Massimiliano Di Penta, Uni. Sannio, Italy
João Pascoal Faria, Universidade do Porto, Portugal
Bernd Fischer, University of Southampton, UK
Sol Greenspan, NSF, USA
Mark Harman, University College London, UK
Rachel Harrison, Oxford Brookes University, UK
Pedro Henriques, University of Minho, Portugal
Israel Herraiz, Technical University of Madrid, Spain
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Walter Tichy, Karlsruhe Inst. Technology, Germany
Richard Torkar, Blekinge Inst Technology, Sweden
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Tao Xie, North Carolina State University, USA
Xin Yao, University of Birmingham, UK
Yuming Zhou, Nanjing University, China