Call for Papers: RAISE 2014

3rd International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering

Hyderabad, India. June 3, 2014 (In Conjunction with ICSE 2014): http://promisedata.org/raise/2014

Important Dates:
Paper Submission: 24 January 2014
Notification: 24 February 2014
CR paper: 14 March 2014
Workshop date: 3 June 2014 (TBC)

Workshop Organizing Committee:
Burak Turhan, Uni. of Oulu
Ayse Basar Bener, Ryerson Uni.
Cetin Mericli, CMU
Andriy Miransky, IBM Toronto
Leandro Minku, Uni. of Birmingham

Workshop Chairs:
Burak Turhan, Uni. of Oulu
Cetin Mericli, CMU

Program Committee:
H. Levent Akin, Bogazici Uni.
Francisco Chicano, Uni. of Malaga
Daniela Da Cruz, Uni. of Minho
Bojan Cukic, West Virginia Uni.
Onur Dikmen, Aalto University
Massimiliano Di Penta, Uni. of Sannio
João Pascoal Faria, Uni. do Porto,
Mark Harman, Uni. College London
Rachel Harrison, Oxford Brookes Uni.
Israel Herraiz, Tech. Uni. of Madrid
Jacky Keung, City Uni. of Hong Kong
Ekrem Kocaguneli, Microsoft, USA
Jouni Markkula, Uni. of Oulu
Tim Menzies, West Virginia Uni.
Tekın Mericli, Carnegie Mellon Uni.
Marjan Mernik, Uni. of Maribor
Leandro L. Minku, Uni. of Birmingham,
Andriy Miranskyy, IBM Toronto
Daniel Rodríguez, Uni. of Alcalá
Mika Qvist, Elektrobit Corp.
Alessandra Russo, Imperial College
Jaakko Sauvola, CASS
Walter Tichy, Karlsruhe Inst. of Tech.
Yuming Zhou, Nanjing Uni.

Keynote Speaker:
(*) TBA

Special Issue:
Extended versions of selected papers will be invited for publication in a special issue of *Software Quality Journal*.

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 as in the case of recommendation systems. Conversely, in theory, SE might also play a role in alleviating development costs and the development effort associated with AI tools and applications such as robotics where proper development and testing practices are of utmost importance. 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 '14 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.
We seek papers that are position statements that review current state of the art results as well as papers that will look over the horizon for discover future directions. Papers may either be regular research papers that will be published in the ICSE proceedings, or they may be "abstract only" and they would only be seen by workshop attendees, presented in brainstorming sessions and discussed in breakout groups.

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, software analytics, 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.
4. **Deployed Applications of AI or SE –** papers that describe a deployed SE application in AI domain or an AI application in SE domain including nut not limited to robotics software development and recommendation systems in SE, etc.

Submission:
Submit papers (PDF) to https://www.easychair.org/conferences/?conf=raise2014
Submissions should be 5 to 7 pages long and can either be position statements that review state of the art results or a vision statement looking over the horizon. All papers are intended to be archival for publication in the ICSE Companion proceedings, however the authors may chose an abstract only publication of their work. If accepted, each paper will be presented in 15-20 minutes presentation sessions to stimulate discussion. Submissions must not be published or under review elsewhere, and conform to formatting using ACM Formatting Guidelines (http://2014.icse-conferences.org/format). Submission length should not exceed the above page limits and all submissions must be in English.