Call for Papers: RAISE 2018

6th International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering

Gothenburg, Sweden, May 27th, 2018 (In Conjunction with ICSE 2018)

http://promisedata.org/raise/2018

The aim of this workshop is to bring together researchers and practitioners to exchange and discuss the latest synergistic artificial intelligence (AI) and software engineering (SE) techniques and practices. Software engineering is now expected to solve a plethora of increasingly complex questions that are dynamic, automated, adaptive, or very large scale. In theory AI technologies can support the development of SE systems as it does (for example) in recommendation systems and software analytics. Conversely, in theory, SE might also play a role in reducing development effort and improving adaptability of AI tools and applications such as robotics. We believe that SE has much to offer AI about systems engineering and scalability of methodologies. Applying SE techniques to a new domain would in turn advance SE further. In practice, this theoretical connection between SE and AI is rarely achieved; yet such mutually beneficial characteristics have appeared in the past few decades and are still evolving due to new challenges and new technology. Hence, the question that motivates and drives the RAISE Workshop series is:

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

Important Dates:
Paper Submission: February 5, 2018
Notification: March 5, 2018
CR paper: March 19, 2018
Workshop date: May 27, 2018

To answer this question, RAISE'18 will be a crossover workshop where the state of the art in both fields is documented and extended. Prospective participants are expected to submit either a regular research paper with late-breaking research results or a research vision/position statement on one or more of the following perspectives:

Topics of interest:

1. **Improving SE through AI** – including but not limited to knowledge acquisition, knowledge representation, reasoning, agents, machine learning, machine-human interaction, planning and search, optimization, search-based algorithms, 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, software architecture, 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, concurrency, 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, recommendation systems, API learning, programming in natural language, speech interfaces, digital assistants, etc.

Submission:

Submit papers (PDF) to EasyChair. Full papers will be five to seven pages long (including references) and can either be position statements that review state-of-the-art results, present new results, or provide a vision for the future. Each accepted paper will be presented in 15-20 minutes presentation followed by a discussion. Submissions must not be published or under review elsewhere, and conform to formatting using NEW ACM Formatting Guidelines. Submission length should not exceed the above page limits and all submissions must be in English. The official publication date of the workshop proceedings is the date the proceedings are made available in the ACM Library. This date may be up to two weeks prior to the first day of ICSE 2018. The official publication date affects the deadline for any patent filings related to published work.