Workshop on Evolutionary Computation Software Systems (EvoSoft)

to be held as part of the

2016 Genetic and Evolutionary Computation Conference (GECCO 2016)
July 20-24, Denver, CO, USA

Organized by ACM SIGEVO
http://gecco-2016.sigevo.org

Description & Topics:

Evolutionary computation (EC) methods are applied in many different domains. Therefore soundly engineered, reusable, flexible, user-friendly, and interoperable software systems are more than ever required to bridge the gap between theoretical research and practical application. However, due to the heterogeneity of the application domains and the large number of EC methods, the development of such systems is both, time consuming and complex. Consequently many EC researchers still implement individual and highly specialized software which is often developed from scratch, concentrates on a specific research question, and does not follow state of the art software engineering practices. By this means the chance to reuse existing systems and to provide systems for others to build their work on is not sufficiently seized within the EC community. In many cases the developed systems are not even publicly released, which makes the comparability and traceability of research results very hard.

This workshop enables EC researchers to exchange their ideas on how to develop and apply generic and reusable EC software systems and to present open and freely available solutions on which others can build their work on. Furthermore, the workshop should help to identify common efforts in the development of EC software systems and should highlight cooperation potentials and synergies between different research groups. It concentrates on the importance of high-quality software systems and professional software engineering in the field of EC and provides a platform for EC researchers to discuss the following and other related topics:

- development and application of generic and reusable EC software systems
- architectural and design patterns for EC software systems
- software modeling of EC algorithms and problems
- open-source EC software systems
- expandability, interoperability, and standardization
- comparability and traceability of research results
- graphical user interfaces and visualization
- comprehensive statistical and graphical results analysis
- parallelism and performance
- usability and automation
- comparison and evaluation of EC software systems

Additional details are available at http://evosoft.heuristiclab.com.

Important Dates & Submission Guidelines:

Submission Deadline: **April 2nd, 2016**
Notification of Acceptance: April 19th, 2016
Camera-ready Submission: May 3rd, 2016
Workshops at GECCO 2015:   July 20th and 21st, 2016

Authors should send their papers to evosoft@heuristiclab.com until April 2nd, 2016. All workshop papers have to fulfill the formatting requirements of GECCO'16 full papers. Detailed preparation instructions for authors are listed here: http://gecco-2016.sigevo.org/index.html/Papers

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