Search-Based Optimization Techniques in the Context of SOA and Cloud Computing

Keynote

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ABSTRACT
The run-time dynamics of SOA and cloud-based applications might require making choices among multiple possible alternatives, satisfying some constraints, and, possibly, achieving some objectives. In past and recent years, search-based optimization techniques have been used to deal with a number of problems related to service oriented architecture: dynamic composition and binding, Service Level Agreement and negotiation are just some examples. The goal of this talk is to overview how search-based optimization techniques have been successfully applied in SOA and how they can contribute in the field of self-adapting systems and cloud architectures. On the one hand, we will overview how the use of search-based optimization techniques can be used for automatic reconfiguration of applications and for optimizing the deployment of load in cloud infrastructure. On the other hand, there are many situations in which the choice intrinsically requires human feedbacks; we will overview how in such situations it would be possible to drive optimization techniques by means of human interactive feedbacks.

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