Reliable Software Systems

Software Engineering Seminar (SoSe 2017)

Search-based Configuration Optimization

Description

In modern enterprise software systems, around 27% of customer issues are related to misconfiguration, and 20% of those cause performance degradations. These performance degradations can cause serious losses for service providers.

The number of parameters and the number of their combinations in complex enterprise systems can be very high, automation of this process is required. Because finding the optimal configuration can be viewed as a search-problem, Singh et al. [2] use genetic algorithm to optimize the configuration. The main goal of this work is to try to explore other possibilities and find ways to improve the approach.

In addition to studying and summarizing the research literature, it is a mandatory part of this seminar to gather and share hands-on experience with the available tooling infrastructure. The provided references [1, 2, 3] are to be considered a starting point and it is expected to extend the literature search and present a coherent view on the current state of the art in this area.

References


Contacts

Dušan Okanović (okanovic@informatik.uni-stuttgart.de)
Reliable Software Systems (RSS) Group
Institute for Software Technology (ISTE)
University of Stuttgart