Adaptivity in Performance

Description

Adaptivity in performance modeling and evaluation is a crucial task when the system overload and system calls increase. Adaptivity in performance modeling and evaluation have a strong relation to monitoring. Updating performance models requires to detect changes on the metrics of performance. During the model update of performance models, incremental transformations are also need to be explored.

The student is supposed to focus on performance modeling and evaluation techniques and investigate the state of the art by analyzing the current papers.

References

[1] Jens Ehlers, André van Hoorn, Jan Waller, and Wilhelm Hasselbring. Self-adaptive software system monitoring for performance anomaly localization. In *ICAC*, pages 197–200, 2011.

[2] Nikolas Roman Herbst, Nikolaus Huber, Samuel Kounev, and Erich Amrehn. Self-adaptive workload classification and forecasting for proactive resource provisioning. In *Proceedings of the 4th ACM/SPEC International Conference on Performance Engineering*, ICPE '13, pages 187–198, New York, NY, USA, 2013. ACM.

[3] Nariman Mani, Dorina C. Petriu, and Murray Woodside. Propagation of incremental changes to performance model due to soa design pattern application. In *Proceedings of the 4th ACM/SPEC International Conference on Performance Engineering*, ICPE '13, pages 89–100, New York, NY, USA, 2013. ACM.

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