

The Impact of Memory Management on Energy Efficiency in Android Applications

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Abstract: *Because they simplify service-intensive app calculation, Android applications are becoming increasingly important. Smart phones, with less resources than desktops, run Android apps. Android applications require diverse methods to ensure quality and efficient development, evaluate data to optimize memory, energy, and battery life, and fix resource leaks. To organize studies on Android application memory and energy performance, resource leaks, and performance testing approaches and issues, I completed a full literature analysis. 31 empirical studies meet the categorization. Address practitioner issues and research gaps. Optimize memory and energy utilization, create an application development strategy, and examine resource leaks from patterns, programming techniques, source code analysis, and performance optimization*

Keywords: Android application performance, Memory optimization