



Android Performance Custom OS

When a new processor or phone is about to hit the market, we can read all about their benchmarking results. Naturally, the new generation of System-on-Chips is always faster (*duh*). Also, performance differences between phones with the same SoC are often minimal. Furthermore, what do results like 74,230 points actually mean? Synthetic benchmarks are not suited to capture real-world performance, and the actual user experience might thus be very different from what the benchmark scores might suggest. In addition, manufacturers have been caught cheating VW-style multiple times on synthetic benchmarks.

While most of the new flagship phones run on very similar hardware, it is the software that sets them apart. Every phone vendor has their own customized version of Android, which even differs between phone models of the same brand. Sometimes we even see strong performance degradations when installing the latest software update on our phones. Therefore, software plays a big role when it comes to real world performance. Unfortunately, measuring real world performance is very difficult. There is no support from the Android API, and recent Android versions have implemented more and more restrictions, making it even more difficult to access performance metrics in an efficient way (or at all).

In this project we want to take real world performance measurement to the next level and implement our own version of Android. This will allow us to create APIs on a system level, which in turn will enable efficient and accurate measurement of many different performance metrics during normal usage. If you want to become an Android expert, then this project is for you. Do not hesitate to contact us so that we can have a chat. We would love to hear your ideas for this project!



Requirements: Creativity and programming skills are an advantage. The student(s) should be able to work independently!

Interested? Please contact us for more details!

Contacts

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