

ANATOLY YAKOVENKO

ayakovenko@gmail.com | [GitHub](#) | [LinkedIn](#)

Hi,

I am really excited about the Senior Embedded Software Engineer role at Magic Leap. I am a software developer with over 10 years of experience working on embedded systems. Over the past 3 years I designed and lead development of a brand new technology, FastRPC, for co-processor communication between ARM and DSP cores on Qualcomm chipsets, for which I was the lead inventor on several patents. FastRPC was commercialized on modern Android, Windows and Qnx devices and featured in Qualcomm's HexagonSDK. We achieved a tenfold reduction in co-processor communication latency, which enabled cutting-edge uses of the DSP, and enabled technologies that would simply not be possible without leveraging the DSP's performance and power efficiency. I have hands on experience with debugging, profiling and optimizing computer vision and image processing algorithms between ARM, Neon and Hexagon DSP processors.

Prior to that, I was the lead developer of COM IPC implementation, which was the backbone of BREW, Qualcomm's mobile OS, commercialized on thousands of devices, millions of units, handling billion 3rd party app developer downloads. The IPC layer I developed provided a fast and secure capability based framework for communication with kernel and user application services. I worked on low level system call optimizations as well as user developer tools such as an IDL compiler, mock object generator, elf parser, system call trace tools. I wrote unit test coverage frameworks with an exception simulator, achieving 100% code coverage in critical pieces of the kernel. I lead interface and code reviews, enforcing strict requirements for API binary backwards compatibility, performance, application and kernel security as well as developer ease of use.

I think what you are working on is awesome, and I would love to be a part of it.

Thanks,
Anatoly