ANATOLY YAKOVENKO

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I'm a software developer with over 10 years of experience working on embedded systems. I'm very interested in augmented reality, and when I heard you were looking for a Senior Embedded Software Engineer, I was thrilled at the chance to be a part of Magic Leap. I have expert-level experience with Qualcomm ARM and DSP processors, and would be an excellent candidate for this position.

Most recently I designed and led development of FastRPC, co-processor communication framework 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. I wrote the Linux, Qnx and Qurt RTOS kernel drivers for FastRPC that manage memory and synchronize caches between the cores. I also have extensive background in working with high volume production software as 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 billions of 3rd party app developer downloads. I have built comerical quality developer tools such as custom IDL compilers, mock object generator, elf parser, and 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. I have hands-on experience with debugging, profiling and optimizing computer vision and image processing algorithms between ARM, NEON and Hexagon DSP processors.

My work on FastRPC contributed to a tenfold reduction in co-processor communication latency, which enabled technologies that would simply not be possible without leveraging the DSP's performance capabilities and power efficiency. It would be an exciting challenge for me to design similarly cutting-edge optimizations of Magic Leap's technologies to push the limits of what is possible with current hardware.

I'd love the chance to interview with Magic Leap, and you can get in touch with me at aeyakovenko@gmail.com. I look forward to speaking with you.

Thank you,
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