

ANATOLY YAKOVENKO

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SUMMARY

Software developer with over 10 years of experience in embedded operating systems, developing [patents](#), leading projects and contributing to large groups including [Linux Kernel](#), with a focus on performance and optimization for Qualcomm ARM and DSP processors.

SKILLS

Hardware and Systems

- Embedded Operating Systems, Linux Kernel, Android, Qualcomm MSMs, System MMUs, ARM, Hexagon DSP

Languages and Tools

- C, C++, Haskell, Lua, Make, Bash, Python, Ruby, Git, Perforce, GDB, Trace32

WORK EXPERIENCE

Qualcomm, San Diego CA

Senior Staff Engineer, 2012 to Present

Staff Engineer, 2008 - 2012

Senior Engineer, 2006 - 2009

Engineer, 2003 - 2006

- Heterogenous Multicore Compute
Lead development of FastRPC, a brand new technology featured in [Hexagon SDK](#) for off-loading computations between ARM and DSP co-processors on Qualcomm's mobile chips. Achieved a 10x reduction in co-processor communication latency. Developed several [patents](#), and commercialized on Android, Windows and Qnx. Extensive hands-on experience developing and debugging multi-core systems. Worked with internal and third party developers on power and performance optimizations on Computer Vision, Augmented Reality, and 3D Camera technologies utilizing Qualcomm's DSP.
- Mobile Operating Systems
Lead development of Inter-Process Communication for BREW, Qualcomm's mobile operating system - shipped on thousands of devices, and millions of units. Additionally developed frameworks, tools, and custom Interface Description Language compiler. Designed critical pieces of the kernel. Lead interface reviews with a focus on binary backwards compatibility, security, and performance.
- QChat Push To Talk
Developed network components using SIP/HTTP/RTP and proprietary standards for QChat Push To Talk service. Designed high performance logging tools to handle tens of thousands of transactions per second from many networked components with a real-time monitoring system.

Alescere LLC, Lisle IL

Co-Founder, 2001 to 2003

- Founding member of [Alescere](#), a VOIP startup
Lead development of SIP and [RTP](#) protocol stacks, and server components for a VoIP

system for small businesses.

University of Illinois at Urbana-Champaign

Research Assistant, 2003

- Developed a web server that supports QoS for HTTP requests
- Designed a probabilistic scheduler for the Linux kernel
- Implemented a roaming protocol for 802.11a/b networks for NetBSD

Personal Research

- Neural Networks, Genetic Algorithms, Markov Models, and Bayesian Inference Algorithms

References

- Brian Kelley, Senior Director of Technology, bkelly@quicinc.com
- Rob Walker, Senior Director of Engineering, rwalker@quicinc.com
- Ramesh Chandrasekhar, Director of Engineering, rameshc@qti.qualcomm.com

EDUCATION

Bachelor of Science in Computer Science

University of Illinois at Urbana-Champaign, 2003