

ANATOLY YAKOVENKO

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SUMMARY

Software developer with over 10 years of experience in embedded operating systems, shipping software on millions of units, 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 developer of 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. Enabled cutting edge Computer Vision, Augmented Reality, 3d camera technologies utilizing Qualcomm's DSP on numerous devices.
- Mobile Operating Systems
Lead developer of Inter-Process Communication for BREW, Qualcomm's mobile operating systems - a capability based object oriented embedded operating system, shipped on thousands of devices, millions of units, with billion of 3rd party application downloads. Developed developer frameworks, tools, and custom Interface Description Language compiler. 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