

# 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 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 [bkelley@quicinc.com](mailto:bkelley@quicinc.com), Senior Director of Technology
- Rob Walker [rwalker@quicinc.com](mailto:rwalker@quicinc.com), Senior Director of Engineering
- Ramesh Chandrasekhar [rameshc@qti.qualcomm.com](mailto:rameshc@qti.qualcomm.com), Director of Engineering

## **EDUCATION**

### ***Bachelor of Science in Computer Science***

University of Illinois at Urbana-Champaign, 2003