

# ANATOLY YAKOVENKO

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

## 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 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 modern Android, Windows and Qnx devices. Extensive experience developing and debugging multi-core systems. Hands-on experience optimizing performance and power of Computer Vision, Augmented Reality, 3d camera technologies utilizing Qualcomm's DSP.
- Mobile Operating Systems  
Lead developer of Inter-Process Communication for BREW, Qualcomm's mobile operating system - shipped on thousands of devices and millions of units. Additionally developed frameworks, test driven development tools, and custom Interface Description Language compiler. Designed critical kernel components. 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](mailto:bkelly@quicinc.com)
- Rob Walker, Senior Director of Engineering, [rwalker@quicinc.com](mailto:rwalker@quicinc.com)
- Ramesh Chandrasekhar, Director of Engineering, [rameshc@qti.qualcomm.com](mailto:rameshc@qti.qualcomm.com)

## **EDUCATION**

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

University of Illinois at Urbana-Champaign, 2003