

# ANATOLY YAKOVENKO

---

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

## 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, 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 a brand new technology featured in [Hexagon SDK](#) for off-loading computations between ARM and DSP co-processors on Qualcomm's mobile chips. Developed several [patents](#), and ported to [Linux Kernel](#), Windows and Qnx. Enabled 15x reduction in power consumption in select Compute Vision algorithms.
- Mobile Operating Systems  
Lead development of Inter-Process Communication for BREW, Qualcomm's mobile operating systems. Developed secure frameworks for 3rd party applications and developer tools for analyzing performance and use. Developed a custom compiler for Interface Description Language achieving a 2x reduction in minimum memory requirements for the entire operating system.
- 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
- SIP and [RTP](#) protocol stacks, and server components for a VoIP system for small businesses

### *University of Illinois at Urbana-Champaign*

### **Research Assistant, 2003**

- Web server that supports QoS for HTTP requests
- Probabilistic scheduler for the Linux kernel
- Roaming protocol for 802.11a/b networks for NetBSD

### ***Personal Research***

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

## **EDUCATION**

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

University of Illinois at Urbana-Champaign, 2003