

# ANATOLY YAKOVENKO

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## Patents

- [US20150301955](#) Extending protection domains to coprocessors.
- [US8869176](#) Exposing host operating system services to an auxiliary processor.
- [US9092281](#) Fast remote procedure call.

## WORK EXPERIENCE

### *Meososphere 2016 to Present*

- Building the Data Center Operating System

### *Qualcomm, San Diego CA*

**Senior Staff Engineer Manager, 2015 to 2016**

**Senior Staff Engineer, 2012 to 2015**

**Staff Engineer, 2009 - 2012**

**Senior Engineer, 2006 - 2009**

**Engineer, 2003 - 2006**

### **Advanced Technologies Group**

- Lead Architect (Lead inventor on 3 [patents](#)) on a team of 10 of a high performance Hexagon [DSP](#) off-loading software stack for next-generation applications.
- Designed and commercialized custom high performance System on a Chip firmware and application level software on 5 different Operating Systems.
- Commercial applications include Augmented Reality, Virtual Reality, 3D Camera processing, 4K video post-processing, and GoogleX's Project Tango.
- Technology used by ~100 licenced 3rd party developers from major OEMs, such as Samsung, LG, GoogleX, Xiaomi, OnePlus and many others.
- 1st commercial Tango phone device, 1st phone 3d camera, 25% performance improvement in phone motion-to-photon 6DOF tracking over leading dedicated VR headset.

### **BREW**

- Core kernel developer for BREW's Operating System.
- Built critical features such as application sand-boxing, kernel containers, device driver framework, IPC stack, system call tracing tools, IDL compilers.
- APIs and tools used by thousands of 3rd party developers, code shipped on hundreds of different handsets and in millions of units.

### **QChat**

- Software developer for server components of a Push2Talk service.
- Implemented network protocols such as SIP/RTP/HTTP, and high performance logging and tracing tools for a large distributed system with over 40 components.

### *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 Interests*

- [Machine Learning](#) and functional programming.
- Underwater hockey - 2012 USA Elite Team!

## EDUCATION

### *Bachelor of Science in Computer Science*

### **University of Illinois at Urbana-Champaign, 2003**

### Keywords

- C, C++, Haskell, Make, Lua, Bash, Python, Perforce, Git, GDB, JTAG, Trace32, System on a Chip, Embedded Operating Systems, RTOS, [Linux Kernel](#), RPC, IPC, Android, Qualcomm MSMs, ARM, Hexagon DSP