ANATOLY YAKOVENKO

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Patents

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

WORK EXPERIENCE

Meososphere 2016 to 2017

- Building highly scalable networking features for container orchestration using Continuously Replicated Data Types, Gossip, multicast, IPVS, IPSec for Mesos and 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, core engineer, and 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 and dozen SoC variants.
- 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.
- Enabled 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, Erlang, Make, Lua, Bash, Python, Perforce, Git, GDB, JTAG, Trace32, System on a Chip, SoC, Firmware, Embedded Operating Systems, RTOS, Linux Kernel, RPC, IPC, Android, Qualcomm MSMs, ARM, Hexagon DSP, Linux Namespaces, Containers, Docker, IPSec, IPVS, L4LB, Mesos.