ARI KAMLANI

US CITIZEN
SAN FRANCISCO, CA. 94133
(919) 522-2242 • akamlani@gmail.com • arikamlani.com

Technologist • Innovator • Strategist
Consumer Electronics • Sports Technology • Media & Entertainment

Innovative engineering professional skilled in formulating strategic opportunities, technology assessment, Proof of Concept (POC) designs, and independent research.

PROFESSIONAL EXPERIENCE

NAGRA KUDELSKI GROUP, San Francisco, California • 2012-May 2015
Leader in Digital Television, Digital Security, and Public Access Control.

Software Expert - Group Innovation
Technologist within R&D Innovation Group responsible for future Technology and Application Advancement. Research and projects typically focused ~5 years ahead.

Selected Accomplishments:
- Develop new technology ideas in relation to Intellectual Property (IP) and creation of Patents
- Create Project Proposals and Presentations to present to executive board
- Technology Research for formation of new Business Units
- Strategic Partner Vendor Relationship development
- POC designs focused on Low Cost RTLS Long Range People Tracking

SPORTVISION, Mountain View, California • 2011-2012
Innovator of sports and broadcast media products and solutions.

Embedded Software Consultant - Motorsports Division
Embedded Software Consultant for Motorsports (NASCAR Trucks) division, reporting to office of CTO.

Selected Accomplishments:
- Develop custom in-house Linux Distribution (Kernel 2.6.35) for motorsport vehicle communication
- Enhance communication signaling between OMAP (OMAP3530) and AVR (Atmel)
- Decrease system boot time and improve system stability issues
- Custom feature development to remotely update images in flash

BROADCOM, Sunnyvale, California • 2011-2011
From acquisition of Beceem Communications - Cellular division specializing in WiMAX and LTE.

Principal Engineer – Systems Engineering
Systems Software Architecture for WiMAX and LTE software reference designs and customer platforms.

Selected Accomplishments:
- Platform Integration architecture and requirements of VoLTE into reference design (BCM21890, BCM Capri)
- Linux Platform and Network Device Driver development of WiMAX and LTE (OMAP 3530, BCM Capri)
- Migration Architecture from Linux to QNX on customer platform (OMAP 4430)
- Multi-site Project management, planning, and coordination of tasks between customers and team members

QUALCOMM, Raleigh, North Carolina • 2007-2010
Large international designer, manufacturer, and marketer of digital wireless telecommunications products/services. Customers include global ODMs/OEMs and semiconductor firms.

Staff Engineer – Computing and Consumer Product Division
Windows Mobile (6.1/6.5/7) BSP software for QSD8650/8250 SnapDragon ARM Cortex architecture processors. Responsible for Board Bring-Up, and BSP Reference Software design. Collaborate with teams to assess processor requirements, develop new features, and integrate software from previous processor baselines.

Selected Accomplishments:
- System Performance initiatives, e.g. boot time, system load ordering, performance monitors, latency
- Board Bring-up across multiple chipset ASIC revisions, baselines, and AKUs
- Kernel and Bootloader feature enhancements
- I2C driver and client slave device development (keyboard, touchpad, PMIC, sensors)
- Collaborate with Hardware teams to resolve timing defects and develop software workarounds
- Collaborate with Multi-site technology teams to resolve system software and subsystem issues

TAPROOT SYSTEMS, Morrisville, North Carolina • 2003-2007
A provider of embedded software; specializing in Telephony, Wireless LAN, and BSP software services.

Principal Software Engineer (Technical lead, Software Architect**)**
Develop Wi-Fi solutions for Symbian OS, and BSP Reference Design software solutions for Windows Mobile. Facilitated business development by participating in presales activities with OEMs, reviewing SOWs, and responding to RFIs. Collaborate with teams to define system/subsystem requirements, software architecture, and resolve certification issues.

Selected Accomplishments:
Reference Design Qualcomm MSM7500/7200 Processors: Based on integrated dual processor solution (ARM11, ARM9) for Windows Mobile 6/6.1 Solutions.
- GPSID for standalone and A-GPS operations; CETK GPS test harness for verification
- SD/MMC/SDIO multiplexing host controller driver
- AMSS RPC SMEM control/event processing and multi-client shared memory between AP/BP
- Resolve thread priority, stability, memory, and synchronization porting related issues

Wi-Fi Solution (802.11 b/g): Fulfilled multiple roles in development of Wi-Fi subsystem for UIQ related projects. Core development based on Symbian OS versions 7.0-9.1.
- Architecture and implementation of Wi-Fi subsystem for different OEM vendors and chipsets
- Architecture and implementation of Wi-Fi Security (802.1x) with EAP methods and Encryption (802.lli)
- Control and Connection Management, Ethernet frame translation, and host driver development
- Collaborate with Symbian (9.3) for Security Subsystem Key Exchange communications framework
- Resolve certification issues with handset OEMs in gaining acceptance from Wi-Fi Alliance

PANASONIC MOBILE COMMUNICATIONS, Suwanee, Georgia • 2000-2003
An OEM of mobile phones.

Senior Software Engineer
Created and enhanced software subsystems to fulfill wireless carrier and QA requirements for North America Mobile Phones. Defined requirements and introduced new features.

Selected Accomplishments:

Nokia Series 60 Symbian OS: GSM/GPRS smartphone solution, based on OMAP 1510 AP, Infineon SGOLD BP.

- Bluetooth CSR H5/BCSP host control and customized command protocol implementation and integration
- LDD/PDD for HDLC GSM 7.10 solution
- Develop uses cases for AP/BP communication
- Define Test and Adjust Mode (TAM) component for calibration, testing, and customization
- Factory, Service Center, and Carrier Requirements Management

Nucleus Plus: TDMA (IS-136) mobile feature phone solution based on Prairiecomm (PCI3620) w/ARM7 (no MMU).

- Secure ESN Bootloader and critical bank preservation development
- Custom Serial Protocol for uploading and downloading melodies/bitmaps to NVM
- NVM customization interfaces for Authentication, Security, and NAM
- Resolve Factory and Service Center production related issues

VERIZON WIRELESS, Plymouth Meeting, Pennsylvania • 1999-2000

Large RF wireless carrier serving clients nationwide. Specializes in wireless voice/data services.

RF Systems Performance Engineer

Ensured wireless network performance for base stations in the Northeastern region. Utilized parameter thresholds to simulate network performance. Analyzed frequency cell planning, addressed call-processing failure problems, and conducted drive tests. Resolved issues around CDMA, CDPD, and AMPS.

Selected Accomplishments:

- Initiate improvements for region performance
- Automate geographical performance reports and base station cell filters

EDUCATION

- Bachelor of Science (BS) in Electrical Engineering - Lehigh University, Bethlehem, Pennsylvania (1999)
- General Assembly Data Science Certification (2014)

PATENTS

- Interference Control in Wireless Communication; United States 13/887,039 (Filed: 05/03/2013)
- Device Localization Based On a Learning Model; United States 14/311,077 (Filed: 06/20/2014)

SELECTED TECHNICAL SKILLS

Applications: Adobe, Libre Office, Microsoft Office
Frameworks: Foundation, Bootstrap, Jekyll
OOD Modeling: UML, OCL
Project Management: Agile Scrum (Pivotal Tracker)
Requirements Management: Doors
SCM/Tracking Applications: Git, Perforce, ClearCase, ClearQuest, SVN, PVCS, Bugzilla, PVCS
Languages: C, C++, Python, R, Javascript, Perl, Squirrel, HTML, CSS, ARM, VHDL
OS: Linux/Unix, QNX, Windows Mobile (6.x/7), WinCE (5/6), Nucleus Plus, Symbian, Windows (7/XP)
IDE/ICE: Eclipse, GDB, Trace32 Lauterbauch, QNX Momentics IDE, Microsoft Visual Studio, Platform Builder, ARM Development Suite, Rational Rose RT, CodeWarrior
CPUs: Cortex (ARMv7-A, A8, A9), ARM11, ARM9, ARM7, 0x86
Microprocessors: QCT (7200/7500/8650/8250), TI OMAP (1510/1610/1710/3530/4430), BCM Capri, Infineon, Prairiecomm
Wireless Peripherals: EM BAP RFID (EM4325), BRCM WiMAX/LTE (BCM350, BCM21890), TI WiFi (TINet1100B), Marvell WiFi (88W8381/85), Phillips WiFi (BGW211), CSR Bluecore (Casira), Qualcomm GPSOne
Open Development Platforms: Gumstix, Beagleboard/BeagleBone, Electric Imp
Electronic Simulation Design Tools: Agilent ADS