

# John Rigby

## Principal Software Engineer

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**John Rigby**  
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Lehi, UT 84043

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### Skills

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Linux expert including board bring up, porting bootloaders and kernel, linux application development, scripting.

Proficient at writing and debugging Linux device drivers including but not limited to serial protocol drivers like UART, I2C and SPI; and audio ASOC I2S, AC97 and PCM codec drivers.

Familiar with multiple architectures including ARM, x86, MIPS, PowerPC and Alpha.

Proficient at C, Bash, Git, Python, VIM and standard Unix command line utilities.

Pathologically responsible.

Curious.

### Experience

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#### **Vivint / Principal Software Engineer**

June 2013 - PRESENT, Lehi, UT

Leading embedded linux team. Using Yocto/OpenEmbedded to provide foundation for higher level python smart-home panel framework.

Did board bring-up of three different i.MX6 based security panels, including U-Boot, Linux kernel and basic userland.

Wrote or forward ported multiple drivers including two different ASOC codec drivers, bitbanged GPIO SWD driver for programming PSOC coprocessor, multiple sysclass drivers for abstracting board specific GPIO differences between board versions.

Created Yocto meta layer for Vivint HW and SW packages.

Maintained and improved older Linux kernel running on TI 814x SOC, including finding and fixing kernel USB driver issues.

#### **Linaro - Canonical / Platform Software Engineer**

April 2010 - May 2013, Remote from home

Canonical assignee to Linaro Enterprise Group working on KVM for ARM v7 and v8. Helped in adding ARM v8 support to QEMU.

Member of Linaro Platform Team. Maintained biweekly packaged Linaro kernel release. Owner of Linaro version of U-Boot. Maintained Jenkins based continuous build testing of packaged Linaro kernels.

#### **Control4 / Embedded Linux Developer**

May 2009 - April 2010, West Jordan, UT

Board bring up and porting of Control4 panel software to new TI OMAP3 based home automation panel. Concept to shipped product in one year.

**JENO Labs / Owner**

March 2009 - Present, Lehi, UT

Freelance part time custom embedded software engineering including board bring-up and porting of U-Boot and Linux kernel.

**Freescale Semiconductor / Embedded Linux SW Engineer**

2002 - May 2009, Lindon, UT

Forward ported Freescale MPC5200 BSP from 2.6.12 to 2.6.16.

Leader of four man team porting Linux to Freescale MPC5121. Personally responsible for drivers for PCI, interrupt controller, clock, serial, AC97 and I2S audio, NAND and PATA. Mentored other team members in porting DMA, frame buffer, spdif and libata drivers.

Served as community maintainer for U-Boot for MPC52xx and MPC512x SOCs.

**Lineo / Senior Software Engineer**

April 2000 - 2002, Lindon, UT

Ported Linux to the MIPS based DCT5000 set top box with zero system documentation, all system knowledge came by reverse engineering.

Ported Linux to an Artile (subsidiary of Toshiba) MIPS processor.

**Novell / Senior Software Engineer**

April 1990 - April 2000, Provo, UT

Ported BSD socket based AppleTalk drivers to System V streams for Portable NetWare product. Later became lead for all Portable NetWare protocol work.

SPARC Platform specialist for Processor Independent NetWare.

Wrote first C implementation of SPX for NetWare.

**Sanyo-Icon / Software Engineer**

1983 - 2000, Orem, UT

Ported BSD 4.2 and later System V Unix to Motorola 68020 and 88K based computers.

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**Education****Brigham Young University / BSEE**

1979 - 1984 - Provo, UT