

LUCKY TYAGI

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EMBEDDED LINUX - DEVICE DRIVERS - YOCTO - KERNEL PORTING - SYSTEM CALLS - BSP

TECHNICAL SKILLS

OS : Linux
Languages : C, Shell Scripting, Yocto Recipes
Protocols : I2C, SPI, RS-232, RS-484
Linux Tools : Makefile, GCC, GDB, KGDB, Yocto, GIT, Linaro
Micro-Processors : ARM Cortex-A9 (i.MX6)

EDUCATION

Amrita School of Engineering, Coimbatore India **MAY 2014**
Bachelors in Electrical and Electronics Engineering, GPA 7.88/10

WORK EXPERIENCE

E-CON SYSTEMS INDIA PVT. LTD. **MAY 2014 - PRESENT**
DESIGNATION : Project Engineer

YOCTO BUILD SYSTEM **AUG - OCT 2014**

■ Yocto Build Setup for custom BSP

Developed a Yocto build setup for automating BSP creation for i.MX6 Processor. It includes creating own BSP Layer, adding machine support and adding custom recipes.

BSP DEVELOPMENT **NOV 2014 - MAR 2015**

■ Custom Board Support Package

Developed a custom BSP for i.MX6 Processor. It includes porting Linux Kernel, Device Tree File, U-Boot boot-loader and Root File System for the target board.

- > U-Boot : 2013.04, 2014.04
- > Kernel : 3.10.17, 3.14.28
- > Ubuntu RFS : 12.04, 12.10, 14.10

DIAGNOSTICS **APR - JUL 2015**

■ Code development for board diagnostics

Developed codes requiring minimal human input to test all peripherals of eSOMi.MX6 board while maintaining minimal time of execution and completion for faster production cycle.

- > C application to diagnose eMMC, RAM, LVDS and GPIO pins in boot-loader.
- > C application to diagnose ADC in root file system.
- > Shell Scripts to test USB OTG, Ethernet, WiFi, HDMI, 3 Camera interfaces (1-MIPI, 2-Parallel), Bluetooth, RS-232 and RS-485 Ports.

DEVICE DRIVERS **AUG - DEC 2015**

■ Developing and Porting device drivers

- > Ported device driver for ADC Chip AD7949.
- > Ported device driver for HDMI and LVDS display interfaces.
- > Developed device driver for DAC Chip AD5724R connected over SPI interface.
- > Developed device driver for RS-232 and RS-485 Muxed serial port.

SYSTEM CALLS and ISR

JAN 2016

■ Custom System Calls and ISRs in Linux

Created and integrated custom system calls in Linux Kernel for added custom functionality. Also developed a custom Interrupt Service Routine for Power Button Key.

TICKET HANDLING, BSP RELEASES and DOCUMENTATION

AUG 2014 - Present

Includes handling customers tickets for custom or additional support. Fixing bugs reported by QA or customer, integrating the bug fixes into new release and setting up to Yocto to create a new BSP. Preparing easy to read, simple and detailed documents for BSP Releases and for customers.

PERSONAL SKILLS

- ❖ Exploring, Learning and Living LINUX.
- ❖ Habit of delivering before or on time on continuous basis.
- ❖ Ability to work in multi-cultural and multi-functional team environment.
- ❖ Excellent Communication skills.
- ❖ Extremely detail oriented and organized.

PERSONAL DETAILS

PERMANENT ADDRESS	Tyagi Niwas, 1 st Street, Sai Baba Colony, Modinagar, U.P
DATE OF BIRTH	2 nd March 1992
CURRENT LOCATION	Chennai
NATIONALITY	Indian
LANGUAGES	Hindi and English