LUCKY TYAGI

(Time's Person of the Year 2006)

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OBJECTIVE

To be part of an organization which is equally or more passionate about LINUX than I am. Where I am presented with new challenges and encouraged to contribute my passion and skills, while learning from others and self, in order to achieve the goals of the organization.

Employment History

E-CON Systems India Pvt. Ltd.

Designation: Project Engineer **Duration**: June 2014 to Till date

Job Profile

- Integration of Device Driver for peripherals(ADC, DAC, HDMI screen, LVDS panel) on 32 bit cortex A9 processors.
- Development and integration of embedded Linux OS for ARM cortex A9 processor i.MX6 based SOM.
- In charge of BSP development using Yocto Project (Poky- Dora, Dizzy, Fido and Jethro) both using GUI and CUI.
- Software Development for Embedded Device using C and Shell Scripting.
- Board bring-up, minimal boot-loader, boot-loader (U-Boot), 3.x Linux Kernel and user-space development.
- Continuous integration of tools, scripts, software and test applications for interfaces like USB OTG, Camera, Bluetooth, Wi-Fi, Ethernet etc.

Technical Expertise

| Languages | C, Shell Scripting, Yocto Recipes |
|-------------------|---|
| Operating Systems | Linux |
| Linux Tools | Makefile, GNU GCC, GDB, KGDB, Yocto Project |
| Microprocessors | Cortex A9 Processor (i.MX6) |
| Tools | Git repo |
| Protocols | I2C, SPI, RS-232, RS-485 |

Projects

1. Developing a Yocto Build Setup for custom BSP for eSOMiMX6.

Developing a Yocto Build Setup includes creating our own BSP Layer, adding machine support and adding custom recipes.

2. BSP development for i.MX6 SOM:

BSP development contains porting Linux Kernel, U-boot and Root file-system for the custom board.

• Porting U-boot (2013.04 and 2014.04).

- Porting Linux Kernel (3.10.17 and 3.14.28).
- Porting Ubuntu (12.04, 14.04 and 14.10) for eSOMiMX6.

3. Diagnostics code development for eSOMiMX6:

Diagnostics code requires minimum or no human input to test the peripherals of eSOMiMX6 while maintaining minimum time of execution and completion.

- C code application to test and diagnose some peripherals in boot-loader like eMMC,
 SD card, RAM and GPIO Pins.
- Shell Scripts and C code for testing some peripherals in Kernel level like USB OTG Client, USB OTG Host, Ethernet, Wifi, Buetooth, SATA, RS-232, RS-485 etc.

4. BSP development for i.MX6 based custom base board (NGPP):

- Porting boot-loader for new configurations.
- Porting device tree file for changed and added peripherals.
- Preparing user test scripts, C applications and diagnostics code for testing peripherals.
- Modifying boot-loader for higher temperature functioning.
- Writing a set of fully automated testing scrips for chamber test of the NGPP custom board.

5. BSP development for Ubuntu OS based eSOMiMX6

- Porting Ubuntu 12.04 for eSOMiMX6 Dual Lite.
- Porting GUI in the Ubuntu 12.04 for eSOMiMX6.

6. Developing device drivers for eSOMiMX6.

- Driver development for 8 Channel ADC chip.
- Driver development for 12-bit, 4 Channel DAC chip.
- Driver development for Power Key Shutdown implementation.

7. Implementing custom ISRs and System Calls in Linux Kernel.

Education Qualification

| EXAMINATION | INSTITUTE | % / CGPA | YEAR |
|-----------------------|----------------------------|----------|-------------|
| B. Tech. (E.E.E) | Amrita Vishwa Vidyapeetham | 7.88 | 2010 – 2014 |
| CBSE 12 th | Kendriya Vidyalaya | 81.8 | 2008 – 2009 |
| CBSE 10 th | Kendriya Vidyalaya | 88.8 | 2006 – 2007 |

Personal Skills

- Exploring Linux, learning Linux and living Linux.
- Ability to deliver on or before time limit on continuous basis.
- Ability to work in Multi-Cultural and Multi-Functional Team environment.
- Excellent Communication Skills (Written and Verbal).
- Extremely detail-oriented and organized.

Hobbies

- Fitness
- Know-Why's
- Physics
- Listening to instrumental music
- Drawing simple cartoons

Personal Details

| Permanent Address | Tyagi Niwas, 1st Street, Sai Baba Colony, Modinagar, U.P |
|-------------------|--|
| Date of Birth | 2 nd March 1992 |
| Current Location | Chennai, Tamil Nadu |
| Nationality | Indian |
| Languages | English and Hindi |

| Declaration | | | |
|--|---------------|--|--|
| I am confident to my best ability to work in a team facing challenges and showing excellence a constant basis. I hereby declare that the information furnished above is true to the best of my knowledge. | | | |
| PLACE: | (LUCKY TYAGI) | | |
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