
V. K. RAVEENDRA TALABATTULA

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PROFESSIONAL SUMMARY

Tertiary-qualified professional with almost **10+ years** of experience possessing in-depth knowledge and experience in **embedded systems**, with extensive experience in **embedded Linux** as well as **Firmware development(bare meta programming)** and **Real time operating systems (RTOS)**. Highly proficient in **Design, development and delivery** of embedded software for new products, using **agile practices**. Experience across both **automotive & consumer electronics industries** – including **graphics cards, memory sticks, touch screen systems, health care equipment** and more. **Able to lead, motivate and work within teams**, ensuring products are delivered on time. Excellent **oral and written communication skills** and can demonstrate a high level of **problem-solving skills**

SKILLS

- Good experience on hardware bring up and device driver development in Embedded Linux, along with boot loaders like Uboot
- Firmware development (Bare metal programming) on 16 & 32 bit micro controllers
- Hands on Real time operating Systems(RTOS - Free RTOS,UCOS) involving multi threading
- Unit and System Testing
- Serial Communication Protocols: SPI, I2C, CAN, USB, RS232
- Version Control systems: Git, DOORS, CVS
- Strong experience in Embedded C and assembly programming
- Programming experience in C++, Matlab
- Experience with Linux Shell & Python Scripting
- Well versed with Agile methodologies
- Micro Processors & Controllers: ARM based(cores: ARM Cortex M3 & ARM9),IMX23, STM32, BF561 DSP, also x86 based
- Tools: JTAG, Oscilloscope, gdb, kgdb, HDT, TRACE 32, IAR work bench, Logic Analyzers, IMX23 SDK, Emulators

WORK HISTORY

AMD Private Limited – Consultant | MTS

April 2016 – Till date

Technologies, Processors & Tools: Embedded C, Linux, Device Drivers, V1000 APU, Git, kgdb,HDT,gdb
Responsibilities:

- Involved in hardware bring up of AMD boards with both integrated and discrete graphics cards. Designed, developed and supported amdgpu Graphics Driver for AMD's APU and dGPU in embedded Linux
- Contributed and Co-ordinated efforts towards maintenance of amdgpu driver for newer and older GPUs
- Followed the agile methods and supported the amdgpu quarterly releases.

- Used software(kgdb)and hard ware debuggers(HDT) to great extent in resolving the graphics issues. Closely worked with hardware team to understand and resolve the hardware specific issues.
- Managed some of the quarterly releases for amdgpu open source driver, while acting as release lead

Key Achievements:

- Hardware bring up of newer graphics cards & resolution of critical issues for quarterly releases

Western Digital(San Disk Device Design Center) – Consultant from **UST Global** June 2014 - March 2016
Technologies, Processors & Tools: Embedded C, Bare metal Programming, Free RTOS, Python

Responsibilities:

- Designed and implemented firmware stack (Bare metal programming) for USB and SD memory cards on San Disk micro controllers using embedded C. Involved in design and code review of new features
- Enhanced and debugged various modules like Garbage collection, GAT, UM in media management layer of San Disk firmware stack using agile practices
- Did a demo project(Conference hall seating system) on STM32 based board using FreeRTOS

Samsung R&D Institute - Technical Lead

November 2012 – June 2014

Technologies, Processors & Tools: Embedded C, Embedded Linux, USB, Exynos(ARM Cortex),Git, kgdb

Responsibilities:

- Provided technical support in hardware bring-up of Samsung DTV boards on embedded Linux and debugged the booting and other performance issues
- Executed smooth integration and maintenance of driver for communication protocols like USB3.0
- Aligned project design development in accordance with engineering policies and procedures following agile methodology

Key Achievements:

- Ensured the timely delivery of USB 3.0 client side drivers for Samsung DTV in short span of time.

Cyient Limited - Senior Software Engineer

September 2010 – October 2012

Clients – Thermofisher Scientific (A Biotechnology product development company) & Novatium

Technologies, Processors : Embedded C, Linux, IMX23(ARM9), STM32(ARM Cortex M3),OMAP3530

Responsibilities:

- Held key accountability for variety of operations, including design, development and testing of display board(bases on IMX23) module of freezer systems(Freezer used to store & monitor blood samples)
- Did the hardware bring up of IM23 with Linux kernel and Uboot. Designed and developed various drivers like Touch, Display, Serial flash, Humidity & Ambient light sensors in Linux on IMX23 processor. Also worked on I2C and SPI drivers in both kernel and Uboot. Debugged the issues using software debuggers (kgdb) and hardware debuggers(TRACE32)
- Worked on hardware bring up of NetPC board(OMAP3530 Processor) with Linux kernel ,U boot and X-loader. Added the Ethernet, onboard USB hub functionality.

Hella Automotive Pvt. Ltd - Senior Engineer

February 2008 – April 2010

Technologies, Processors & Tools: Embedded C, Firmware development, AT91(ARM7), CAN, DOORS

Responsibilities:

- Bare metal programming - development, bug fixing and testing of firmware for automotive systems
- Servicing System– developed and supported the CAN drives & other servicing modules on AT91 systems
- Leveraged static code analyser tools, such as QAC for code compliance with MISRA C standard

EDUCATION

BITS, Pilani – M.E(Embedded Systems)

Aug 2005 – June 2007

JNTU, Hyerabad – B.Tech(Electronics and Communication Eng)

Sep 2001 – July 2005