

Chandrasekhara Reddy K

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AN OVERVIEW

- Development Engineering Manager with 22+ years of overall experience in Product engineering of Consumer Electronic Devices (5 Years), Medical Devices (14+ Years), Industrial devices (2) and Automotive (1 Years).
- Expertise in end-to-end design, development and enhancement of embedded software system that comply with secure development life cycle practices to meet cyber security requirements.
- Expertise in managing cross functional teams, Stakeholders and Project(s).

SKILL SET

- Customer-centric professional, driving/motivating team to meet customer expectations.
- Functional and Cross functional team management. Technology/Project/People Management.
- Defining suitable methodology and best practices for product development, project execution.
- Experience in handling NPD, enhancement and Sustenance Projects.
- Expertise in RTOS, Non RTOS based system design. Firmware (Efficient C, CPP& Assembly Coding).
- Expertise in new Technology Adaption in new/existing Products.
- Proposing and driving team to realize use cases for new features based on functionality/Technologies.
- Expertise in reviewing multi-dimensional review of product artefacts: Product use cases, Product/Software Requirements, System architecture, Software Architecture, Module Design and Code.

ORGANISATIONAL SCAN

Engineering Manager / Healthcare Technology Innovation Centre, IIT Madras / Jan 22 -

- Managing endoscopy system product development
- Setting up Verification Team, Quality Team
- Setting up Quality Management System and Process Adaption

Consultant / Aug 20 - Dec 21

- Managing Medical Device Software development
- Estimation and Planning for Wearable device prototype based on Nordic semiconductor Platform (Zephyr OS).
- Contributed towards Process improvement.

Principal Project Officer / IIT Madras, Chennai / Jun19 - Jul20

- Development Manager for productizing Ultrasound based Research outcome to address safety critical industrial needs.
- Responsible for Realizing first stage Proof of Concept Demo kits.
- Responsible for Lab infrastructure management, Calibration and procurement.
- Improving ultrasound echo signal
- Contributed towards Process improvement.
- Supporting Staff, students for their day-to-day research requirement.

Development Manager /KONE Elevator India Private Limited, Chennai / Aug18 - Apr19

- Product/Team/Technical/Project management of safety critical Industrial product.
- Requirement Preparation, Requirement/Scope management; Long term Roadmap definition for Connectivity.
- Team formation/ skill building/ product owner for Cloud based Application.
- Responsible to drive Technical Discussion, Lab setup/infrastructure.

- Contributed towards Process improvement.

Innovation Consultant / Apr17 - Jul18

- Responsible for Strategy and Planning for healthcare wearable (multi-vital sign parameter monitor).
- Working with other start-ups to explore developing less complex affordable NPD for Indian market.
- Clinical Study in Hospital environment.
- Vendor selection and management.

Senior Technical Manager/ HCL Technologies Ltd, Chennai / Jun'12 - Mar'17

- uNabto solution integration with solar inverter to enable connectivity.
- Managed (Technical/Project) software team in developing insulin infusion pump using SafeRTOS/FreeRTOS.
- Managed Medical Grade IoT Gateway with Cloud Connectivity Requirements and Verification team.
- Technical/Project management of Regulatory Assessment for Wi-Fi Adaptation in Endoscopy Products to enable IoT/Connectivity; Responsible for Cyber Security Assessment
- Managed Cloud based Defibrillator Wi-Fi Accessory Product sustenance.
- IEC 62304:2006+AMD1:2015 Gap Analysis and QMS update to incorporate IEC 62304 amd#1, Voice Over Text Learning module preparation for IEC62304 standard.
- Driving team in design and Development of AUTOSAR based driver modules.
- Resource recruitment, Vendor interfacing, customer interface, Infrastructure Procurement.

Quality improvement/Team Mentoring:

- Driving design/code review of Medical Products Defibrillator, Myocardial infarction system and IVF Incubator.
- Driving design/code review of High-end Industrial Water pumps UI Subsystems.

Technology adaption:

- Wi-Fi Security for Medical products.
- NFC use case definition for Infusion Pump, Insulin Patch Pump.

Manager / CMC Ltd, Hyderabad / May' 10 - Feb'12

- Defining Consumer domain CoE strategy.
- DLNA based Apps development.
- Study the trends in Medical Domain and exploring new business opportunities.
- Proposed value-added patient care Medical echo system to improve the lives of the patients and Health care providers.

Project Lead / WIPRO Technologies, Hyderabad / Jul' 04 - Mar '10

Project Management/Technology adaption:

- Interactive DTV Solution Project for Brazilian Market.
- Porting DTV platform to PC Environment Project.

Design and Development/Technical Management/Customer Management:

- Developing Software for Quadra Core Mobile Chipset.
- Porting Music Player Middleware. Integrating Bluetooth Solution and realizing use cases.
- Brew based Media Player Application development

Member Technical Staff / HCL Technologies, Chennai / Mar' 01 - Jun'04

Design and Development: Sterilization System

- Involved in design and development of modules: Temperature control and Sterilization Process application.
- Contributed in the Designing of the Cycle Control Configuration File (CCF).

- ➔ Analysing the Requirements, Change Request. Maintenance support for Sterilization Process Application.
- ➔ Power Loss Management.

Design and Development: Handheld device to control Implantable device

- ➔ Nucleus PLUS RTOS Porting/Customization for S3C2400/10.
- ➔ RTC, PWM Timer, Parallel EEPROM Driver Development.
- ➔ System control module development.

Design and Development: Automotive dashboard application

- ➔ Dash board application to display various indications: engine temperature, oil pressure, engine warning, battery status, fuel indicator, Fog lamp indicator.

EDUCATION & CERTIFICATIONS

- 1998 **Bachelor of Technology in Computer Science and Engineering** from Acharya Nagarjuna University, Guntur, Andhra Pradesh, India. Secured Distinction (76%)
- 2000 **Master of Technology in Computer Science and Engineering** from Pondicherry University, Pondicherry, India. 7.2 CGPA.
- 2011 Certified Project Management Professional (PMP) since 2011, **PMP®** Number: 1457479
- 2020 Computer Vision Courses from opencv.org (in progress)
- 2021 Technology Based Entrepreneurship Development Programme (TEDP) - 6 Week Training from Department of Science and Technology (DST) and IIT Madras
- 2021 Certificate Course on Deeptech Entrepreneurship- 1 Week Training from IIT Hyderabad

ANNEXURE: SKILL SET

Programming Languages	C, CPP and ARM assembly
Operating Systems	RT Linux, Linux, QNX, Nucleus Plus, Rex, C-Executive, embOS, SafeRTOS, FreeRTOS, Zephyr OS
BSP/RTOS Porting	Nucleus Plus, C-Executive, FreeRTOS, SafeRTOS
Multimedia Knowledge	Good understanding of Qualcomm’s audio sub-system architecture on MSM7500 chipset. Hands on exposure to Mobile concurrent operations. Audio Formats: WAV, AAC-LC, SBC Basic knowledge on gstreamer, ffmpeg.
Version control	CVS, PVCS, Perforce, SVN, GIT
Defect Reporting/Tracking	PVCS Tracker, CRMDB, Bugzilla, Redmine, Quality center
Technical Trainings Undergone	Linux Device Drivers, Linux kernel programming, embedded Linux Machine Learning
Project Management Skills	Certified Project Management Professional (PMP) Undergone 10 days training on project Management MS Project Exposure, project planning, tracking, monitoring and control.
Quality/Process:	Familiar with ISO 9001, CMMI, ISO/IES 27001, Undergone training on Six Sigma, Process Performance Model
Medical Quality:	ISO 13485, ISO 14971, IEC 62304, IEC/TR 80002-1, IEC 60601-1-8:2006+AMD1:2012 Alarms standard, FDA Design Controls -21 CFR 820.30
Life Cycle Model:	Waterfall and Agile Scrum
CyberSecurity:	<i>NIST security standards</i> , Basic familiarity on IHE, DICOM, HL7