

ABRAHAM GOGULAMUDI

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PROFESSIONAL SUMMARY

Meticulous embedded software leader bringing 14 years of experience in embedded medical grade, automotive and digital infotainment product development field, with a focus on delivering innovative business solutions and successful track record of leading embedded software development projects.

TECHNICAL SKILLS

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| Programming Languages | C, C++, VB, MFC, Qt, Python, Power Shell, Shell scripting, Assembly, COM, DirectShow and OpenGL |
| Operation Systems | Embedded Linux, Yocto, Windows CE 5/6/7/2013, Windows CE Auto, Windows XP/XP Embedded, Windows 7/Windows Embedded Standard 7, Windows Embedded 8, Windows 10 IoT, VxWorks, Ubuntu, QNX and FreeRTOS. |
| Device Drivers | Windows WDM, KMDF, UMDF, WSK, TDI driver frameworks, Network NDIS 5.1/6.0, Virtual Device Drivers, PCIe, USB, I2C, SPI, NAND/NOR Flash, Printer, Bluetooth, Wi-Fi, Audio and Video device drivers with DTM/WHQL compliance. Linux device drivers for Bluetooth, UART, SPI, I2C, accelerometer and GPS. |
| Hardware and Software Stacks | USB, PCI/PCIe, LVDS, VGA, I2C, I2S, SPI, NOR, NAND, SMBUS, SD/SDHC/SDXC, UART, Gyro, Barcode, Accelerometer and CMOS Sensor. |
| Architectures | Freescall: i.MX27/i.MX53/i.MX6, i.MX8. TI: Davinci/Jacinto/Sitara. Qualcomm: Snapdragon 410c. Intel: x86/x64, Atom (Bay Trail) Cypress: PSOC 4/5 |
| Development Tools | Visual Studio 6/2005/2008/2010/2015/2017, TI CCS, Eclipse, PSoC Creator, GDB, Platform Builder, Atmel Studio and ADS. |
| Configuration Management and DevOps | GIT, ClearCase, SVN, CVS, Perforce and TFS. |
| Project Management | Coverity, CPP Unit, Sonar, Doxygen and Jenkins. |
| Wireless Protocols | Agile, SaFe and Waterfall. |
| Cyber Security | Wi-Fi 802.11, FIPS, Bluetooth, NFC and RFID. |
| | Secure Software Update, Boot, OSS, and CVE. |

WORK HISTORY

04/2020 to Current

Staff Software Architect

GE Healthcare -Bangalore, Karnataka

- Architected Mural Connect Hub edge connectivity platform (IoMT) which serves various products across GE Healthcare.
- Architected Secure Embedded Linux OS distribution which caters multiple medical devices (10+) to address cyber security patching.
- Led strategic software platforming initiatives.

- 11/2015 to 04/2020 **Product Owner**
GE Healthcare – Bangalore, Karnataka
- Translated product manufacturing and service goals, feature concepts and manufacturing and service needs into prioritized product requirements and use cases.
Translated multi-platform goals, feature concepts and customer needs into prioritized product requirements and use cases.
 - Led product specification and application architectures which can run on multiple OSs.
 - Led the Embedded platform development team that created Common Embedded Linux OS and application platform multiple products.
 - Led the design and development for manufacturing, service, and development teams to ease of design, develop, manufacture and service.
 - Created innovative and intuitive product features such as software updates and configuration backup OTA.
 - Led communication with stakeholders regarding product goals and progress made.
- 04/2015 to 11/2015 **Senior System Specialist**
GE Healthcare – Bangalore, Karnataka
- Led bi-weekly Scrum planning meetings to develop team strategies and define project goals.
 - Translated technical specifications into detailed product requirements.
 - Coached and mentored 4 new staff members, including conducting performance reviews.
 - Streamlined deployment process by developing continuous integration tools.
 - Strengthened developmental methodologies by introducing a code quality document.
 - Developed software components.
- 04/2014 to 03/2015 **System Specialist**
GE Healthcare – Bangalore, Karnataka
- Played key role in identifying next generation Hardware (iMX6/Sitara/Beagle-bone/Intel baytril) and Software (Windows CE/Embedded Linux/Windows Embedded Stranded/Yocto) platforms that resulted in multi-product platforming.
 - Played key role in defined BSP specification and closely monitored the deliverable's from vendors.
 - Played a key role in identifying multi-platform software frameworks.
 - Played a key role in design and development of remote service framework.
- 08/2010 to 04/2014 **Senior Design Engineer**
GE Healthcare – Bangalore, Karnataka
- Developed Windows CE 6.0 BSP for freescale iMX27 based custom HW.
 - Developed NAND Flash, USB Full Speed Host,SDHC 2.0,Battery,RTC,Watchdog and Fast Ethernet Controller drivers and tested with CETK
 - Designed and developed custom USB based thermal writer, ECG acquisition device drivers and high-level application frameworks.
 - Developed an innovative software-based emulator to help marketing and application developers to avoid HW dependency.
 - Designed and developed MFC application.
- 11/2009 to 08/2010 **Senior Engineer**
Symphony Services – Bangalore, Karnataka
- Worked closely with other departmental peers to develop high availability solutions for mission-critical automotive applications.
 - Designed and developed Radio Data Services protocol decoding and presentation for CAR infotainment application.

- MFC application development which controls DSP audio and video algorithms.

04/2007 to 10/2009

Staff Software Engineer

TESSOLVE EMBEDDED SYSTEMS – Bengaluru, KA

- Developed application software which demonstrates CMOS Sensor Features like Multi ROI functionalities. This software collects video frames and controls camera sensor over network
- Developed custom Windows CE 6.0 BSP for the custom Davinci board taking a Reference BSP.
- Developed WDM Device Driver, API library and GUI for PCIe based analog to digital converter
- Developed NDIS based network driver for IPTV HD video receiver.
- Ported WDM USB network driver to KMDF network driver and also did debugging and testing driver for WHQL certification for window Vista
- Developed API library for various peripherals like GSM modem, Bluetooth, GNSS, Gyro Sensor on Magellan Promark-4 navigation system

EDUCATION

2007

Diploma in Real Time Operating Systems: Embedded Systems

Cranes Varsity - Embedded System Institute - Bengaluru, KA

2006

Bachelor of Engineering: Electronics and Instrumentation Engineering

Bapatla Engineering College - Bapatla, AP

CERTIFICATIONS

- Certified ScrumMaster
- Certified Product Owner

PATENTS

PATIENT HEALTHCARE INTERACTION DEVICE AND METHODS FOR IMPLEMENTING THE SAME (us 20190198169 15/910686)