Roopa Patil

Software Developer

United Kingdom

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## summary

Results-orientated Embedded Software Engineer with more than nine years experience in analysis, design, development, testing, and implementation of various embedded software systems. Able to adapt quickly to new languages, technical skills and new business environments while completing assignments with timeliness and accuracy as priorities. A people person with a strong focus on helping others learn the basics, working as a team, and being considered an asset of a company.

## HIGHLIGHTS

* Excellent embedded C, C++ programming skills. Familiar with Java programming.
* Strong OOD techniques with C++.
* Wireless LAN driver/firmware specializing in 802.11abgn wireless protocols
* Experience of working on windows, Linux, embedded real-time OS such as VxWorks and Embedded Linux.
* Programming microcontrollers embedded with Atheros microprocessor and wireless module running Linux/Vxworks operating system.
* Development of GUI with Visual Basic.
* Knowledge of GUI implementation with Win32.
* Excellent working knowledge of mobile browser, MMS and Email user agent.
* Developed html pages with Perl and CGI.
* Hands on Experience in developing applications with open source code, for example OpenWrt.
* Developed unit and system test case development.
* Good understanding of Inter Process Communication (IPC), socket program,

TCP/IP, UDP and network programming.

* + - * + Worked with Microsoft visual studio and Eclipse IDE’s.
        + Good knowledge of testing handheld device applications.

## Education

Bachelor’s degree in Computer science(August -1999 - June 2003) from Gogte Institute of technology (affiliated by Visweshwaraih Technological University), India.

## Work Experience

**Wavesight, UK, July 2016 – October 2016,Feb 2017, Software Engineer (Contract), Permanent from August 2017 - Present**

Develop software for 802.11n/ac wireless network products.

* Embedded C language based development of 802.11a/n/ac Wi-Fi point-to-point and point to multipoint links on embedded Linux OS.
* Implement Luci based web user interface to configure radios.
* Implement SNMP agent for IEEE 802.11 based products.
* Testing 802.11a/n/ac devices.
* Programming embedded device based on Atheros AR9558 processor running Linux operating system.

**Abicom International, UK, June 2016 – September 2016, Software Engineer (Contract)**

Develop software for 802.11n wireless network products.

**Responsibilities**

* Embedded C language based development of 802.11a/n Wi-Fi point-to-point and point to multipoint links on embedded Linux OS.
* Add support to overcome CSMA overheads in case of congested 5Ghz environments.
* Programming embedded device based on Atheros AR9558 processor running Linux operating system.

**Wavesight, UK, June 2010 – October 2015, Software Engineer**

Develop software for 802.11a and 802.11n wireless network products.

**Responsibilities**

* Embedded C language based development of 802.11a/n Wi-Fi point-to-point and point to multipoint links on VxWorks and embedded Linux OS.
* Add support for half rate (10 MHz) channel width adaptation for wireless modules based on Qualcomm Atheros chipset.
* Support and maintenance of 802.11a/n Wi-Fi units.
* Development and maintenance of user interface for network management software using Visual Basic.
* Implement SNMP agent for IEEE 802.11 based products.
* Interact with field engineers to resolve network problems.
* Programming microcontrollers embedded with Atheros AR9558/AR9344/AR7161 chips running Linux operating system.
* Programming microcontrollers embedded with Atheros AR5312 chip running Vxworks operating system.

**LG Soft India Pvt Ltd, India,** February 2008 – May 2009**, Senior Software Engineer**

**Responsibilities**

Developed mobile applications for popular LG handsets like KF510, Cookie, Arena (KM900) and KS360.

* Embedded C++ language based development and support of browser module on mobile platform with both WAP1.x and WAP2.x support.
* Support for RSS module.
* Development and support of streaming module for live TV and videos on embedded mobile platform.
* Resolving defects for user interface involving various phone modules like call, phone settings and network settings.
* Coding for Country specific and Operator specific data to support release of mobile handsets in various countries.
* Coordinating with field test engineers to resolve the various mobile application related issues arising while performing field-testing.
* Developed user interfaces using Apoxi, Acrodea workshop and WISE.

**Jataayu Software Pvt Ltd (now known as Mahindra ComViva), India,** January 2004 – December 2006**, Software engineer**

Develop embedded wireless applications, framework, and technologies currently available for mobile phones including browser and MMS client.

**Projects**

* Multimedia messaging service (MMS) user agent.
* Browser user agent using open source microwindows environment.
* In house product – RTK simulator (automated testing tool).

**Responsibilities**

* Design and implementation of MMS Compose user interface.using embedded C++. Rendering of multimedia content in MMS using SMIL presentation technique.
* Implementation of digital rights management (DRM) module.
* Integration testing of MMS client for WAP 1.x connection.
* Developing an automated testing tool that simulates Real Time Kernel environment specific behaviour on windows platform.
* Automation of smoke test and regression testing.
* Integration testing of mobile applications such as MMS, Browser, Call phone settings, SMS.
* Handling of browser cache, cookie, bookmarks, favourites, and History modules.
* Handling of WAP PUSH Service indication and Service load content types.
* Development of GUI for mobile browser.
* Unit testing of WAP stack.
* Development of GUI for MMS to handle various media types.
* Knowledge of TRACE32 hardware debugger.