SACHIN KUMAR

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PROFESSIONAL SUMMARY:

- **6 years 4 month** of experience in Embedded Middleware development .
- 4 Years of Experience in product development companies.
- Strong experience in C/C++ ,Data Structure and Design Pattern.
- Good knowledge of Socket Programming and networking protocols (TCP/IP, UDP).
- Good knowledge of DVB, MPEG-2 standards and IPTV.
- Always ready to learn new technologies.

Work Summary :

Company	Designation	Duration
R Systems International,Noida	Senior Software Engineer	December 2016 to Present
Exza Infosystems Pvt. Ltd ,Pune	Senior Software Engineer.	Apr-2015 to November,2016
Indieon Technologies Pvt. Ltd ,Pune	Junior Software Engineer	December, 2012 to Mar-2015

Education:

Gradutation	University/Institute	Specialization	Grade/Marks
M.Tech	BITS Pilani	Software systems	7.87 CGPA
P.G. Diploma	CDAC Acts Pune	System software design	70.25%
B.Tech	UPTU(Lucknow)	Computer Science	72.64%

TECHNICAL SKILLS:

Programming/Scripting Languages	C, C++, Shell Scripting ,basic python
Operating Systems	Unix/Linux, RTOS(ecos)
Protocols	TCP/IP, UDP,D-Bus
S/W Version and Tracking Tools	SVN, Bugzilla,GIT,JIRA
S/W Engineering and methodology Tools	Wireshark

PROJECTS PROFILE :

Project Name	**IPTV Middleware Feature development.**
Organization	R Systems International Pvt. Ltd, Noida
Role	Senior Software Engineer
Duration	2 years 4 Months
Language and Tools	C++,c++11,C, Linux,python, GIT, JIRA,Glib,libxml2,json-c,Design Pattern

Project Details:-

In this project we are providing support to Belgium based IPTV customer feature development and bug fixing is main focus mainly working on middleware features like nPvr ,cPvr ,VOD ,Parental control etc ...

Responsibilities:-

- Development of new features , parsing (xml/json),.
- Performing unit test on developed feature.
- Daily reporting for scrum with client scrum master to complete and plan sprint.
- Providing fix of bugs reported by client.

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Project Name	Integration of Latens CAS with STB Middleware for Mstar Chipset.
Organization	Exza Infosystems Pvt. Ltd, Pune
Role	Senior Software Engineer
Duration	4 Months
Language and Tools	C, RTOS (ecos), SVN, Bugzilla

Project Details:-

In this integration process we need to develop communication layer for latens cas(conditional access system) and STB(set top box) Middleware based on the guidelines provided by cas vendor.

Responsibilities:-

- Development of interface layer.
- Performing unit test using STIK Player.
- Interaction with cas vendor over integration issues and resolving the same.
- Providing fix of bugs reported by client.

Project Name	Development/Porting of DVB-C Middleware stack on different platforms.
Organization	Exza Infosystems Pvt. Ltd, Pune
Role	Software Engineer
Duration	11 Months
Language and Tools	C,C++, Linux,ecos, SQLite3, SVN, Bugzilla, Beyond compare

Project Details:-

It involves development of middleware as per DVB standards to provide the more features in STB and porting of middleware on different platforms followed by bug-fixing and unit testing.
It also involves build environment creation for new vendor sdk.

Responsibilities:-

- Implemented Auto Aspect Ratio Detection Feature.
- Chipset vendor sdk integration with platform abstraction layer(build environment).
- Interaction with drivers team over integration issues and resolving the same.
- Providing fix of bugs reported by client.
- Performing unit/integration testing for fix provided.

Project Name	Integrated IP Application Development
Organization	Indieon Technologies Pvt. Ltd.
Role	Junior Software Engineer.
Duration	4 months.
Language and Tools	C/C++,ezxml,curl,Linux,ffmpeg.

Project Details:-

YouTube, NDTV 24x7 NDTV Profit NDTV India application will use Standard Data API to retrieve video feeds or list of videos in ATOM 1.0 or RSS 2.0 format. For Youtube video link returned by the ATOM feed returns HTML document containing video content download links for different resolutions (e.g. 720p, 480p,240p etc) and container formats (e.g. FLV, MP4, etc).

Responsibilities:-

- Used ffmpeg to fetch video from actual url and convert the video to TS container format and store in circular buffer.
- C function to read circular buffer and then inject to PAL Playback Api's.
- Implemented Feed Parser in C for parsing ATOM 1.0 and RSS 2.0 XML documents for youtube and NDTV app.

Project Name	App Eco-System
Organization	Indieon Technologies Pvt. Ltd.
Role	Junior Software Engineer.
Duration	**1 Year**
Language and Tools	C/C++,xml/json, JavaScript, Wind River Linux,Curl, ezxml,Valgrind.

Project Details:-
Framework that allows for development of interactive applications over the Development stack. The applications will be developed using an interpreted script-based language so that the core code-base of the device software would be kept static while applications can be loaded and unloaded dynamically. Such applications would be easy to develop even by a third-party and also would be cross-platform to the best possible extent.we here integrating c++ opensource project Jslibs (which is based on Firefox browser's javascript engine **spidermonkey**) with Segger Embedded GUI Toolkit.

Responsibilities:-

- Cross compilation of jslibs for STB chipset.
- Written Native APIs in **C** to support IR capture in javascript.
- Written Native API's in **C/C++** which helps to draw gui on lcd through javascript.
- Integration of Curl Library(a tool to transfer data to and from server) With Jslibs which helps to support https requests through javascript.
- Download and parse xml/json feeds to extract and display relevent Content attributes.
- Analysis of chrome/mozilla packaged app,IPC mechanism(Message Queue,pipes,shared memory).
- Implementation of setInterval ,ajax method XMLHttpRequest in **c** language for jslibs.

Project Name	Hybrid STBs Framework(DVB-C and IP-Streaming)
Organization	Indieon Technologies Pvt. Ltd.
Role	Junior Software Engineer.
Duration	9 months.
Language and Tools	C/C++,jquery,json/xml,RTMPDump,Rest API,fastcgi+lighttpd,QT Webkit,HDS,ST Linux ,socket programming

Project Details:-
Hybrid broadcast/IP set-top boxes, allowing internet-streamed content to be viewed.

Responsibilities:-

- Setup Development Environment for ST Liege(kernel compilation,STAPI SDK compilation,STLinux Installation,set up Lighttpd server with FastCGI).
- Written Qt browser interface with STB application in **C**.
- Playback done using rtmpdump library(live and vod content).
- Object Oriented Programming in javascript(prototype-oriented).
- Analysis of HLS(HTTP Live Streaming) and HDS(HTTP Dynamic Streaming) to Understand Behaviour of Adaptive Streaming.
- Bug Fixing.

Project Name	**NVRAM Emulation and qctool testing and Debugging**
Organization	Indieon Technologies Pvt. Ltd.
Role	Junior Software Engineer.
Duration	1 month
Language and Tools	C , µC/OS

Project Details:-
Need to Emulate the behaviour of NVRAM on specified Flash Partition.

Responsibilities:-
- Setup Development Environment for Broadcom 7301 board (TFTP setup).
- Implemented NVRAM Emulation.
- Modulewise bug fixes to pass qctool testcases.

Declaration:
I here by declare that the above written particulars are true to the best of my knowledge and belief.

Date:
Place: **Signature**
                                                                   (Sachin Kumar)