

Ankit Shukla

+91 9689135919

asankitshukla769@gmail.com

Summary:

- 10 years of experience in C, C++ on LINUX/WINDOWS/WINCE/QNX based embedded Development.
- Experience in Design Patterns (Singleton, Factory Pattern and Adapter), STL containers, algorithms, and iterators.
- Experience in socket programming, Multithreading, Inter Process Communication, Synchronization and Linux Systems Programming.
- Experience in development tools/IDE (Visual Studio2010/2013, qnx momentics, and QT, SVN).
- Experience in developing Wince Device Drivers and Linux Device drivers.
- Good knowledge on Debugging using GDB, Remote debugging, Kernel Debugging, Performance debugging
- Good Exposure on Linux kernel internals and Wince architecture and Linux Graphics stack.
- Good knowledge of Software Development Life Cycle and designing project on requirement.
- Good understanding of design principles (SOLID principles)
- Platforms used: X86, ARM (Includes GPU and CPU)

Skills and Tools:

- **Programming/Scripting Languages:** C, C++, C++11, Python, Shell Scripting
- **Version Control Tools:** SVN, Git, Makefiles, RTC
- **Requirement management tools:** Rational Doors
- **Debugging Tools:** gdb, Trace32, Lauterbach, Debugging using Visual studio.
- **Design Tool:** IBM Rhapsody
- **Unit Testing:** VectorCast
- **Operating System:** Linux (Ubuntu, Kali-Linux, OpenSUSE), WinCE7, LynxOS, Windows
- **IDE:** Visual Studio, QDE, QT, Eclipse
- **Standard data interchange formats:** JSON, XML
- **Design Patterns:** Singleton, Factory, Adapter, and builder
- **Data Structure and Algorithm:** Array, String, LinkedList, Stack, Queue, Binary Search tree, Hash
- **OS Concepts:** Process Management, Memory Management, Virtual file system, Multithreading, IPCs and synchronization mechanism.
- Agile/Scrum
- Socket programming, Cross platform product development

Employment Summary:

Duration	Employer
March 2019 – Till date	Siemens Technology and services pvt. ltd, Pune
June 2015 – March 2019	Tata Elxsi ltd, Pune
August 2014- June 2015	Infosys ltd, Hyderabad
August 2011- August 2014	Rockwell Collins India, pvt. Ltd, Hyderabad

Certifications: P.G Diploma in System software from CDAC, Pune

Project Summary:

Project #	1
Project Name	RBC (Radio block center)
Team Size	6
Period (Duration)	2.5 years
Client	Siemens Spain
Work Location	Pune, India
Domain	Mobility
Language	C, C++, python
Operating System	Windows7
Tools and compiler	g++
Project Description	RBC module communicates with the Train system. It receives the position report from Train system. Position is read through Balise device fit into Train system. once the connection is established between train system and RBC, it provides the movement authority to ensure the safety.
Responsibilities	<ul style="list-style-type: none">• Work on development after requirement analysis.• Analyze the logs and do bug fixing.• Work on Unit testing using VectorCast tool.• Perform static code analysis.• Lead the team of 6 members and resolve technical issues.• Release the billing for every month.

Project #	2
Project Name	GM Instrument cluster
Team Size	6
Period (Duration)	2 months
Client	Visteon Sofia
Work Location	Pune, India
Domain	Automotive
Language	C, C++
Operating System	QNX, Windows7
Tools and compiler	Qcc, g++, gcc
Project Description	IC project involves processing data from Vehicle processing and sends required data to UI controller. UI controller maps sent data with corresponding UI widgets and required data is shown on cluster. It basically shows the critical data like Tire pressure, fuel data, Tire temperature, tachometer, speedometer data.
Responsibilities	<ol style="list-style-type: none"> 1) Understand the requirements and perform high level and low-level system design. 2) Develop the new features from the given requirements. 3) Perform unit testing using Gmock and Gtest. 4) Work on static code analysis. 5) Work on Unit Testing using VectorCast tool.

Project #	3
Project Name	AppLink
Team Size	6
Period (Duration)	3 years, 2 months
Client	Panasonic Automotive
Work Location	Pune, India
Domain	Automotive
Language	C, C++
Hardware	ECUs(Electronic control unit)
Design Pattern	Singleton
Operating System	QNX, Windows7

Tools and compiler	Qcc, g++, gcc
Project Description	App link provides facility to connect your smart phone into infotainment system. It communicates with several modules which are responsible to boot the system and then Applink involves user interaction to take voice commands and UI touch-based input. It provides embedded navigation system as well.
Responsibilities	<ol style="list-style-type: none"> 1) Understand the requirements and design the system. 2) Develop the new features from the given requirements. 3) Analyze the bugs from the logs and do bug fixing. 4) Analyze the core dump. 5) Perform unit testing using Gmock and Gtest. 6) Work on static code analysis.

Project #	4
Project Name	Wince OpenGL call stack porting and Graphics driver development on WinCE platform
Team Size	4
Period (Duration)	1 year
Client	AMD
Work Location	Hyderabad, India
Domain	Graphics and multimedia
Language	C, C++
Hardware	Ontario board, Kabini board, Mullins Board
Operating System	Wince 7.0, Ubuntu 13.10, Wince 13
Tools and compiler	Visual studio, SVN, Super tool, GCC, qt4.8, Makefile
Project Description	Porting Linux graphics stack to WinCE platform and work on Radeon GFX graphics driver to provide the software and hardware rendering mechanism to speed up the performance of driver for videos and gaming platform.
Responsibilities	<ul style="list-style-type: none"> • Ported LLVM OpenGL library for WinCE • Worked on development of Graphics driver • Worked on defect fixing and driver performance improvement activity. • Worked on DRM subsystem and Linux graphics stack porting for wince platform. • Application development for OpenGL.

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Project #	
Project Name	Onboard maintenance system
Team Size	20
Period (Duration)	3 years
Client	Rockwell Collins, US
Work Location	Hyderabad, India
Domain	Avionics
Language	C, C++, Python, Shell scripting
Hardware	ARM7
Operating System	LynxOS (Target), Windows (host environment)
Tools	Visual studio, SVN, Doors, Clear quest, PREP, Makefile, Sqlite3, Lauterbach Trace32
Project Description	OMS is a subsystem which includes several applications, and it is responsible to communicate with the LRU (which resides in Aircraft) using ARINC protocols. It provides maintenance data (air indicator, fuel indicator, wires configuration) to Pilot and maintenance people on the request. It communicates to LRU through Ethernet medium and OMS applications communicate using XML RPC calls internally.
Responsibilities	<ol style="list-style-type: none"> 1) Understand the requirements and discuss with partners. 2) Develop the new features from the given requirements for <ul style="list-style-type: none"> • Diagnostic Report Application (DRA) • Display Manager Application (DMA) 3) Perform functional and Unit Testing. 4) Work on bug fixing.

Academic Summary:

Course	Institution/University	Year	Marks
B. Tech	UPTU	2010	74%
Intermediate	U.P. Board	2005	71%
High School	U.P. Board	2003	69%

Personal Data:

Name : Ankit Shukla

Father's Name : H.S. Shukla

Date of Birth : 22-Jun-1988

Languages known : English and Hindi