

**Ankit Shukla**

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## **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 algorithms, containers, and iterators.
- Experience in socket programming, Multithreading, Inter Process Communication, Linux Systems Programming.
- Experience in development tools/IDE (Visual Studio 2010/2013, 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
- **Debugging Tools:** gdb, Debugging through 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
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"><li>• Worked on development.</li><li>• Worked on bug fixing.</li><li>• Worked on Unit testing for developed module.</li><li>• Performed static code analysis.</li><li>• Leading the team of 6 members.</li><li>• Released the billing for every month.</li></ul>

Project #	2
Project Name	GM Instrument cluster

<b>Team Size</b>	6
<b>Period (Duration)</b>	2 months
<b>Client</b>	Visteon Sofia
<b>Work Location</b>	Pune, India
<b>Language</b>	C, C++
<b>Operating System</b>	QNX, Windows7
<b>Tools and compiler</b>	Qcc, g++, gcc
<b>Project Description</b>	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.
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>Analyze the requirement for new features and do the low level and high-level design.</li> <li>Implement the new feature and perform Unit testing to ensure code coverage.</li> </ul>

<b>Project #</b>	<b>3</b>
<b>Project Name</b>	AppLink
<b>Team Size</b>	6
<b>Period (Duration)</b>	3 years, 2 months
<b>Client</b>	Panasonic Automotive
<b>Work Location</b>	Pune, India
<b>Language</b>	C, C++
<b>Design Pattern</b>	Singleton
<b>Operating System</b>	QNX, Windows7
<b>Tools and compiler</b>	Qcc, g++, gcc
<b>Project Description</b>	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.

<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>Analyze the bugs from the logs and fix the issues.</li> <li>Develop new features in c++ on qnx platform.</li> <li>Worked on design changes for new features.</li> </ul>
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<b>Project #</b>	<b>4</b>
<b>Project Name</b>	Wince OpenGL call stack (Graphics driver development on WinCE platform)
<b>Team Size</b>	4
<b>Period (Duration)</b>	<b>1 year</b>
<b>Client</b>	AMD
<b>Work Location</b>	Hyderabad, India
<b>Language</b>	C, C++
<b>Operating System</b>	Wince 7.0, Ubuntu 13.10, Wince 13
<b>Tools and compiler</b>	Visual studio, SVN, Super tool, gcc, qt4.8, Makefile
<b>Project Description</b>	Developed OpenGL call stack on WinCE platform. The OpenGL dependencies available on Linux was ported for WinCE platform. It provides the software and hardware acceleration and renders the frames per second.
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>Ported LLVM OpenGL library for WinCE</li> <li>Worked on development of Graphics driver</li> <li>Worked on defect fixing and driver performance improvement activity.</li> <li>Worked on DRM subsystem and Linux graphics stack porting for wince platform.</li> <li>Application development for OpenGL.</li> </ul>

<b>Project #</b>	<b>5</b>
<b>Project Name</b>	Onboard maintenance system
<b>Team Size</b>	20
<b>Period (Duration)</b>	3 years
<b>Client</b>	Rockwell Collins, US
<b>Work Location</b>	Hyderabad, India
<b>Language</b>	C, C++, Python, Shell scripting and Sqlite3
<b>Design pattern</b>	Factory design pattern
<b>Operating System</b>	LynxOS, Windows

<b>Tools</b>	Visual studio, SVN, Doors, Clear quest, PREP, Makefile
<b>Project Description</b>	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.
<b>Responsibilities</b>	<p>Worked on new features of the below apps:</p> <p>Diagnostic Report Application (DRA)</p> <p>Display Manager Application (DMA)</p> <p>Creating functional specification document.</p> <p>Unit testing of code.</p>

### 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