‍‍Atul kumar

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Summary

I am a passionate IT professional with keen interest in technology and building software. Below is a quick summary of my professional journey:

* Seven years of proven software development experience in IT industry
* Highly proficient in C, C++, Object Oriented Design/Analysis, Qt framework, Linux Internals, QML.
* Working knowledge and of Python, XML, Machine learning algorithms/perception focused on self-driving car.
* Built high-quality software based on various Enterprise Technology and platform.
* Experienced in using various industry standard tools and techniques for development, code management, unit testing, release management, automation and ROS (Robotic Operating system).
* Strong analytical, interpersonal skills, conceptual and practical understanding of technology operations
* Good understanding and experience using JIRA, Confluence, modern SDLC and agile delivery.
* Worked in multi-cultural global teams (onshore-offshore) and in a matrix structure.
* Mentored and trained junior developers and new hires.
* Good understanding, hands-on machine learning and artificial intelligence.
* Experience in technical delivery and development in Enterprise partnered environment.
* Experience in writing stories (both functional and non-functional) and communicating those effectively to the team.

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| **Company** | **Time** | **Role** | **Clients** |
| Value labs/Aristocrat Contract | 2017- till date | System Engineer | Aristocrat |
| HARMAN International | 2016 – 2017 | Senior Engineer I | HARMAN, Ford |
| Robert Bosch, India | 2014 – 2016 | Senior Engineer | Robert Bosch GmbH, Maruti Suzuki, JAC, Renault-Nissan |
| IDC Technologies Sol. (I) Pvt. Ltd, India | 2014-2014. | Senior software developer | Robert Bosch GmbH |
| Mindtree Ltd., India | 2011-2014 | Software Engineer(R&D) | TomTom, Peugeot. Continental AG |

Skills & Abilities

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| Languages | C++, STL, C++11/14, C, Linux Internals, Python, XML, QML, JSON |
| IDE | Visual studio 10/12/15/17, Qt creator 3.7, CGI studio, Eclipse |
| tools | ROS, RPA, Jira, Bitbucket, GIT, Stash, Confluence, Fisheye, CAN analyzer, GDB, Core dump, Leaktracer, Elvis, SystemTap, IBM Clear case, IAR State machine 7.2, Jenkins, DLT (Diagnostic log & trace). |
| Operating Systems | Windows7/8/10, Linux, Ubuntu 14.0, Yocto (Automotive Linux) |
| protocols | CAN, TCP, UDP, G2S |
| Other | IBM Virtual box, VMware Player, IBM Logiscope, Lint, Radar, DOOR, Code Sonar |
| UML ToolS | Enterprise Architect, Start UML 2.0 |

Experience

SYSTEM Engineer | vALUE LABS | 2017 – TILL DATE

**Project**: Slot Machine game to system protocol development

This project was to develop controlling protocol to connected slot machine as per NSW market.

Team size was 2 people, managed by Project manager in the Sydney.

**My Responsibilities:**

* Understand functional and nonfunctional requirement, create user story and implement them.
* Develop, Implement and bug fixes in legacy code base and extend the protocol.
* Continuous integration/release base on the release plan.
* Add new interface, event, message for electronic gaming machine, ticket in ticket out for payment system.
* Setup SQL database, run query and see the update in the table for new feature in user interface tool.
* Analysis of logs captured through serial communication and on simulator.

**Skills Used:** C++, C, XML, JSON, SQLite, SQL

**Achievements:**

* Successfully developed prototype and first drop to USA team for testing.
* Generated document from the code base that was developed for almost a decade.
* Developed application to start the engine.

Senior Engineer | Harman International | 2016 – 2017

**Project**: Next generation FORD low-cost infotainment system

This project was to develop next generation Qt based HMI/UI for Ford worldwide on Harman low-cost next-generation platform. A key objective was to provide high-quality software with global standards in the tight timeline for largest revenue-generating customer.

Team size was 8 people, spread across geographies and managed by Project managers in the USA.

**My Responsibilities:**

* Automate the existing software through RPA for customer provided third party application for validating data.
* Requirement elicitation with multisite engineers (The USA, China & India) and customer.
* Develop, Implement and bug fixes for setting and audio applications.
* Daily HMI/UI software build/release on yocto Linux, adapting the Bit bake base recipe for the different module of HMI/UI for integration.
* Put first level analysis/fixed on build errors/ system crash & pass to respective team/developer.

**Skills Used:** C++, Qt 5.7, RPA, QML, Photoshop, JSON

**Achievements:**

* Successful feature freeze of settings & audio application with a high standard of quality.
* Integrated language & font tool to find errors during compilation before merging to master branch.
* Automated document generation from the code base that helped to improve development team's performance.
* Developed library for different Operating system.

SENIOR ENGINEER | ROBERT BOSCH BUSINESS AND ENGINEERING SOLUTION LTD | 2014 - 2016

**Project**: Third generation toolchain development in vehicle infotainment

Developing toolchain used for various customers’ projects based on MVC architecture. A key objective of the toolchain project is to make and maintain common code base to fulfill 90% of the future customer or pipeline project & for demonstration to OEM for working new feature.

Team size was 10 people, spread across geographies and managed by Project managers in the GERMANY.

**My Responsibilities:**

* Requirement discussion meetings with multisite engineers (Germany, Japan & China).
* Develop and implement the design concept for various 2D, 3D widget & animation for HMI/UI. (Timer widget, clock widget, keyboard widget & processing widget)
* Develop and implement prediction feature for the Chinese characters, based on user input in the widget for China's leading OEM.
* Providing the workaround solution to project team for customer demo in handwriting widget (User input widget) & keyboard.
* Implement auto disabling of some HMI/UI features in the various application based on increasing speed.
* Root cause analysis of complex defects & fixing the memory leak issues for home screen HMI/UI in the clock.
* Debugging the target by GDB using eclipse for black screen, the distorted image in navigation application.
* Analyze log files of different tools like DLT viewer, CPU load & memory leak.

**Skills Used:** C++, xml, C, open GL concept and Shader programming.

**Achievements:**

* Successful demonstration of prediction feature for APAC region.
* Worked with a completely new project team and trained them to use code base, feature, the state machine to work independently.
* Developed alternative of Anti-alias algorithm for significant reduce in GPU and CPU load.

**Project**: Support to Renault-Nissan,Maruti Suzuki, JAC2, JAC M6 project team on framework 2.0 + toolchain

Developing HMI/UI based on MVC architecture on Bosch framework 2.0 and third-party tool.

Team size was 15 people, spread across geographies and managed by Project managers in the USA, INDIA & CHINA.

**My Responsibilities:**

* Reviewing Business Requirements, Effort Estimation for speed disable feature & tuner application.
* Implemented Python script for generating the XML code which is input to the keyboard widget.
* Setup tuner & navigation application for Demo and Status Reporting.
* Proof of concept for keyboard feature with architect & implementation of keyboard feature.
* Scrum Sprint activities and co-ordination with the project coordinator on customer site.
* Supporting the project team for leak issue, configuring the widget, state machine.
* Requirement Analysis, Effort Estimation & design the new widget.
* Developed of the model component and State machine.
* Integrating windows, X-86 & ARM library for predicting Chinese character.

**Skills Used:** C++, XML, Open GLES, Scene Composer(CGI)

**Achievements:**

* Successful demonstration of prediction feature for APAC region.
* Automate base code generator to reduce effort and maintainability.
* Received customer appreciation.
* Delivered features which helped team getting certified from APPLE (car play) and google (android auto).

Senior Software Engineer | IDC Technologies |  2014 – 2013

**Project**: Toolchain development in vehicle infotainment

Build competency of BOSCH on third party new tool which would replace EB GUIDE.

Team size was 16 people, spread across geographies and managed by Project managers in the INDIA & USA.

**My Responsibilities:**

* Adding and presenting proof of concept for tool chain.
* Taking the ownership of existing widget from other developer & developing the new application & widget.
* GDB & eclipse setup for head unit for debugging complex issues in toolchain.
* Adding new screen, state machine and new feature in window's simulator.

**Skills Used:** C++, Qt 5.0, RPA, QML, Photoshop

**Achievements:**

* Helped the team in crucial time for three different OEM.
* Bosch took me on their payroll from IDC.

Software Engineer (R&D) | Mindtree Ltd | 2011 – 2013

**Project**: Infotainment platform development (NGIP) by Tom Tom Europe

Software is intended for easy and quick integration of specific new applications or updates, across market segments and tier one suppliers. The application is being developed on customer platform.

Team size was 7 people, spread across geographies and managed by Project managers in the EUROPE & INDIA.

**My Responsibilities:**

* Develop DLT application (Diagnostic log & trace) client with daemon & displaying log files.
* Develop code for routing adapter using GENIVI interface having QT base HMI/UI.
* Develop unit test for guidance adapter for Gmock unit test framework

**Skills Used:** C++, QT 4.0, C, Linux Internals

**Achievements:**

* Successfully added the new adapter in the code base.
* Unit test coverage reduced test team effort. Worked with a completely new project team and trained them to use code base, feature, the state machine to work independently.

Education & Certification

Bachelor of technology in Computer science & engineering | 2010 | UPTU, INDIA

Diploma in system software development | 2011 | C-DAC, PUNE/India

PROFESSIONAL SCRUM MASTER Certified | 2017 | SCRUM.ORG

ROBOTIC PROCESS automation developer (RPA) Certified | 2017 | UiPath

Solution architect Training Certificate | 2018 | uipath

Udacity Self DrIVING NANODEGREE ENGINEER | 2018 | uDACITY