**Name: Vishnu**

**SUMMARY:**

* Around 6+ years of experience in design, development, coding in the field of embedded systems, Diversified Experience in **Application Development, Maintenance.**
* Strong experience in **C/C++ on Linux** using STL, multithreading (POSIX), Boost libraries, data structures, IPC (TCP/IP socket programming).
* Strong in Object-Oriented Programming (OOP), Object Oriented Analysis and Design patterns
* Experience in various aspects of system architecture, software design, development, implementation and validation.
* Good knowledge on Wi-Fi/I2C/BLE/ZigBee protocols.
* Good knowledge on IoT (Internet of Things) end-to-end application development.
* Experience with application migration to cloud platforms like AWS.
* Very strong exposure on software development on Embedded Linux and RTOS.
* Deep Understanding of Linux Kernel Internals experienced in user and kernel space.
* Strong ability and skills in design, coding, debugging, problem-solving, integration and maintenance.
* Experienced with Data flow diagrams, Data dictionary, Database normalization theory techniques, Entity relation modeling and design techniques.
* Hands-on experience on SCM tools like GIT/GitHub.
* Good hands on experience on Web services like RESTful API, SOAP API and XML data integration.
* Very strong exposure on software development on Embedded Linux, VxWorks (RTOS).
* Proficient at debugging code using gdb tools. Acted as second and third level support at various positions.
* Good debugging and analytical skills on x86 and ARM platforms. Performed Debugging profiling for optimization purpose and finding bugs in Linux platform
* Experience using in Python, Shell, Bash, Pearl scripting, Kernel debugging and QT-QNX.
* Have excellent analytical, problem solving, communication and interpersonal skills, with ability to interact with stakeholders at all levels and work as a part of a team and independently.
* Have exposure with Agile software methodology and Scrum activities

**Technical Skills:**

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| --- | --- |
| **Operating System** | Windows, Linux |
| **Programming Languages** | C, C++, RESTful, JSON |
| **Cloud Platform** | AWS, Azure |
| **Scripting Languages**  | Shell, Perl, Python |
| **Protocols** | TCP/IP, I2C, SPI, UART, RS232, Bluetooth, Wi-Fi |
| **Tools IDE** | MS Visual Studio, Eclipse, Source Insight |
| **Databases** | Oracle, PL/SQL, IBM DB2, SQLite, MongoDB |
| **Other Tools** | Wireshark, Ethereal, GDB, CICD, Jira, Kibana |

**Professional Summary:**

**Caterpillar, Inc Peoria, IL**

**Sr. C++ Developer/Embedded Engineer July 2018 – Present**

**Responsibilities:**

* Attending Sprint Planning meetings and gathering Functional and Non-Functional requirements that are required for the Cat Construction Technology Connected Solutions.
* Designing, building, maintaining efficient and reliable **C++ code on Ubuntu** for GPS Time Rollover Occurrence for the Product Link devices to provide geo-fence alerts.
* Coordinate all Scrum Ceremonies including Sprint Planning, Daily Standups, Sprint retrospectives, Sprint Demos, Story Grooming, and Release Planning whenever scrum master is not available.
* Working closely with other Engineering officials to develop the new products.
* Giving Suggestions and implementing improvements on current products.
* Writing the new Algorithms and modifying the existing algorithms that are useful for improving systems functionalities.
* Making planning’s to develop the next generation software.
* Establishing the Validation Standards and developing the testing protocols.
* Performing duties like preventive maintenance, testing equipment maintenance.
* Writing and Developing Test Automation Scripts by using various scripting tools like Python, Shell script which are very useful in performing automation testing.
* Attending Meeting with offshore Teams in India as well as in USA with clients and customers to give presentations and LIVE Demos on products and systems.

**Environment:** C++, UNIX, LINUX/Ubuntu, QNX, Python Script, Jenkins, JIRA, Confluence, GIT, Visual Studio, ARM Architecture, PL/SQL, Shell scripting, Perl, TCP/IP, GPS, GDB Debugger.

**GE Transportation, a Wabtec company Erie, PA**

**C++ Developer/Embedded Engineer May 2017 – June 2018**

**Responsibilities:**

* Worked as C/C++ developer with Test Driven environment and embedded software applications deployed for marine terminals.
* Port Optimizer is cloud-based software that enhances supply chain performance and predictability by delivering real time data-driven insights.
* Major role as an embedded software developer for scheduling, planning and tracking the containers using IoT based solution using x86 platform.
* Preparing Maintenance Manual, System Description Document and other technical and function documents.
* Automation done for generating various kinds of reports by using Perl/Shell scripts.
* Responsible for coding the various components using C, C++ and Python Scripting.
* Developed applications using an openSSL API which can work as encryption interface (API) between client/server.
* Involved in writing optimization techniques performance tuning in Oracle SQL, PL/SQL.
* Designing new software applications in C/C++ to meet business needs.
* Unit testing the programs for correctness against the requirements
* Involved in part of the integration team, which analyzed the builds and used Jenkins for integration.
* Involved in making the Test Plans and Procedures, which drives the Strategies and tools identification, Managing Test design over cross-functional teams. As well created Test Summary Reports.
* Development and Testing, certifying the programs developed on client production platforms for fixing the portability issues, Maintenance.
* Use git repository for development activities and team collaboration.
* Unit testing the programs for correctness against the requirements

**Environment:** C++, STL, Wind River Linux, Multi-threading, QT/QML, Jenkins, JIRA, Bash, POSIX Threads, Git, BOOST libraries, OOAD, XML/JSON, Shell/Perl Scripting ,NoSQL, JavaScript, IoT gateways

**Deutsche Bank Cary, NC**

**C++ Developer Feb 2016 – Apr 2017**

**Responsibilities:**

* Designed, developed, and tested software applications to ensure secure PoS transactions by creating digital signature.
* Design and develop solutions using C, C++, Multi-Threaded, Shell Scripting.
* Developing and modelling the data structures for internal use of project.
* Working in AGILE methodology.
* Working with servers to resolve the issues in deployment and production.
* Implementing improvements in current project products.
* Attending daily meetings to provide my suggestions and to get the new requirements.
* Developing and maintaining clear and accurate documentation for current project.
* Involving in to the project Test cases according to release or production deployments.
* Implement new headers and functionalities in the project for business requirement usage.
* Working on new and existing modules (plan, design, develop, document, test, deploy, support).
* Resolving production issues and supporting proactively to deliver high quality products.
* Working with both onsite and offshore team for developing and supporting the project.
* Working on extensions of existing products and migration work.
* Generating the reports for business applications.
* Communicating with the web applications by using servers.
* Design scalable and robust solutions that help in enhancement and maintenance activity of future.
* Validate all the current system dependency and find similar support in cloud-based architecture and services.
* Use suitable object design patterns to meet the expectation and create further reference for the team.

**Environment:**

C, C++, Java script, CSS, XML, HTML, Web-Services, PL/SQL, Oracle, Cloud Services, UML.

**Spark Solutions Pvt Ltd Hyderabad, India**

**C++ Developer June 2014 – Dec 2015**

**Responsibilities**

* Developed the configuration tool using C, C++ languages in Linux.
* Actively participated in debugging stage.
* Worked on the Storage Stack and actively got involved with the Debugging issues.
* Created API's that were extensively used throughout the component building and for further enhancements using C/Linux Programs.
* Worked as a software Engineer for debugging NAND Utilities.
* Developed and executed test scripts to verify and validate the component built.
* Automated the test scripts using scripting languages like Shell & Perl.
* Understanding of kernel sub-systems and platform devices for ARM architecture.
* Performed GUI, Functional, Regression and compatibility Testing.
* Participate in the planning and analysis phase of Internet/Intranet software, and Web Services application development.
* Developed test strategies, test plan and test cases.
* Performed Regression testing as and when required to ensure the stability of the application.
* Worked with defect life cycle using Quality Center.
* Involved in creating Library functions and object repository.
* Created the Test Data to parameterize the scripts using Data Driven Testing.

**Environment:** C, Linux, Device Drivers, JTAG, NAND Utility, Perl.

**Educational Details:**

Masters – Computer and Information Systems – CALUMS University

Bachelors- Computer Science and Engineering – JNTUK