**Professional Summary :**

* C/C++ software Developer with Over 9+ years of Software development life cycle experience on Linux and Windows-based applications. Including requirements, definition, features and functionality, design and development, unit testing, verification, validation, and enhancements.
* Strong expertise in C, C++ (including C++11 and C++14), Python and SQL.
* Experience in various aspects of system architecture, software design, development, implementation, and validation.
* Strong experience in creating Test Plans and Test procedures, driving Test Strategies and tools identification, Managing Test design through cross-functional teams, and creating Test Summary Reports.
* Served as Single Point of Responsibility for Software Development Life Cycle with accountability of requirement analysis, architectural design, technical design, creating POC, preparing/reviewing estimation, coding, holding technical discussion, implementation, defect fixing and tracking, maintenance, and application enhancement.
* Experienced in operational systems incident management, root cause analysis, and application/product performance management.
* Experience in the Development of Project Plans, Software Design Documents, and Validation plans Worked on Client/Server, SQL Server, and Web-based applications with a strong business understanding and knowledge of Order management systems.
* Experienced with Data flow diagrams, Data dictionary, Database normalization theory techniques, Entity relation modeling, and design techniques. Sound knowledge of porting code on specific platforms, memory and performance estimation, and memory management using Linker command files.
* Expert-level knowledge of Visual C++ and Win32 API
* Developed C++, and SOAP Webservices on UNIX and Linux platforms using gsoap.
* Proficient in static analysis tools like CPPCheck and Coverity.
* Good understanding of the OSI Model, TCP/IP protocol suite
* Experienced with full software development life cycle, architecting scalable platforms, object-oriented programming, database maintenance, and agile methodologies.
* Experience in using the C++ Standard Template Library (STL), and BOOST Library.
* Experience with QT and QML UI Development.
* Experience in implementing and using Data Structures and Algorithms.
* Familiar with embedded diagnostic and development tools.
* Experience in C, C++, STL, Visual C++, Visual Studio 2008 Team Suit, Platform Builder 7, EVC++ 4.0 and MFC, Win32 APIs.
* Proficient in C, C++, Oracle Tuxedo, Oracle Pro C, Oracle Pro C++, SQL, PL/SQL, Linux, and Shell Scripting.
* Good experience with JENKINS and other build environment tools.
* Involved in code reviews and test case reviews.
* Experience in using C and Assembly language to debug and update firmware versions.
* Experience in working with Automated Testing methods.
* Strong verbal and written communication skills used to successfully develop presentations, write reports, and draft correspondence.

**Educational Details :**

* Bachelors in Electronics and Communication Sree Datta College of Engineering and Science, India.
* Masters in MSCIS - University of California management and science.

**Technical Skills :**

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| --- | --- |
| **Programming Languages** | C, C++, Python, Java, Golang, Shell Scripting |
| **Operating Systems** | Linux, Sun Solaris, Windows. |
| **Database Systems** | MySQL, MS Access, SQL Server, Oracle, Cassandra |
| **ORM Framework** | Django |
| **Methodologies** | Agile, RAD, Waterfall, Test Driven, and Scrum Models |
| **Web Services** | SOAP, RESTful, WSDL |
| **IDE Tools** | Eclipse IDE, Net Beans IDE, Visual Studio, Can, Canoe, Ethernet |
| **Application Software** | Microsoft Word, Excel, PowerPoint, Outlook |
| **Continuous Integration** | Jenkins, Quick Build, Bamboo, CI/CD Tools |
| **Frameworks/ Tools** | Boost, Apache Active MQ, ANT, Gradle, Maven, JAM, CMake, Bazel, gdb, dbx, pdb, link, CPPCheck, Coverity, gprof, Val grind, Jenkins, Git, SVN |

**Professional Experience :**

**Client : Johnson & Johnson, IN March 2022 – Present**

**Role: C++ Software Developer**

**Responsibilities:**

* Analyzing the customer specifications to develop the software requirements.
* Performing software development activities, which include Requirement gathering, Design conceptualization, and Coding.
* Proficient in QA processes, test strategies, and experience in testing documents like Test plans, test procedures, and Test Cases
* Worked on IOT for microcontrollers in hardware layers.
* Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions.
* Demonstrated solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments, and clear code.
* Implemented and maintained Oracle Tuxedo services and servers to facilitate high-performance distributed computing.
* Designed and developed Tuxedo-based middleware solutions to enable seamless communication between disparate systems.
* Analyzing, designing, and implementing change requests for the C/C++
* Prepared and installed solutions by determining and designing system specifications, standards, and programming in Desktop Framework.
* Utilized Oracle Pro C and Pro C++ to embed SQL statements directly into C/C++ code for efficient database access.
* Developed custom database interfaces using Pro C/C++ to integrate application logic with Oracle databases.
* Developed complex SQL queries to retrieve and manipulate data from relational databases efficiently.
* Created stored procedures, functions, and triggers using PL/SQL to encapsulate business logic and ensure data integrity.
* Developed shell scripts (Bash, Python, etc.) to automate system administration tasks, such as backups, log rotation, and software deployment.
* Implemented shell scripts for monitoring system performance and generating automated reports, improving operational efficiency and reducing manual effort.
* Developed a C++ application by creating a class for each application. Each application uses the functionalities of a framework Preparing program, unit test specifications, and system test plan for the components.
* Followed Agile Methodologies
* Worked on Server platform and workstation software on Windows Workstation editions
* Managing the configuration and controlling the code version using subversion

**Environment:** C, C++, STL, QT/QML, UNIX, Linux, g++, GCC, Java, IBM DB2, WIN32 multithreading, gdb.

**Client : Harman International MI Jan 2021 – Feb 2022**

**Role: C++ Software Developer**

**Responsibilities:**

* Performing software development activities, which include Requirement gathering, Design conceptualization, and Coding.
* C++ coding of Models (IVR Programs) in a 3-layer (Framework, Attributes, Models) architecture application.
* Singleton design pattern as used in the framework.
* Send/receive XML requests and responses through the HTTP protocol
* Developed a C++ application by creating a class for each application. Each application uses the functionalities of a framework Preparing program, unit test specifications, and system test plan for the components.
* Expertise in Python, Linux Shell, Windows PowerShell, Perl scripting, Kernel debugging, and QT-QNX.
* Creating a new Win23 application to present the user interface for maintaining process settings as well as viewing the run status of the client/server process. This ran as a system tray application in a very similar way to the way Instant Messenger runs.
* Creating data-specification Win32 database and UI application for "smart chips. Required dynamic, runtime creation of database schema, SQL writing to both create and present current database to the user, and UI programming. UI mainly includes a complex, multi-step, multi-path wizard, which was done to the Wizard 97 specification.
* Worked on Server platform and workstation software on Windows Workstation editions
* Managing the configuration and controlling the code version using subversion
* Strong experience in debugging crash-dumps using WinDbg, Platform Builder 7 on Windows, and Workshop on Solaris and Unix Operating system platforms providing end-to-end
* Ensuring compliance with the development processes and methods.
* Analyzing the issues raised either during testing campaigns or in-service usage.
* API Configured internet software/web servers on UNIX, Linux, and Windows-based systems.
* Optimized design and code for high performance and fixed various bugs.
* Enhanced application performance by optimizing Pro C/C++ code for database interaction, reducing query execution times and resource consumption.
* Optimized SQL queries and PL/SQL code for performance, analyzing execution plans and tuning database indexes as needed.
* Designed, developed, and maintained scalable and high-performance middleware solutions using Oracle Tuxedo for distributed transaction processing.
* Configured and fine-tuned Tuxedo environments to optimize resource utilization, throughput, and response times.
* Wrote and debugged Pro C/C++ programs to execute SQL statements and PL/SQL blocks within C/C++ applications, ensuring data integrity and consistency.
* Developed custom database access modules using Pro C/C++ for interfacing with Oracle databases, optimizing performance and minimizing resource consumption.
* Implemented error handling and logging mechanisms in Pro C/C++ code to facilitate troubleshooting and diagnostic efforts.
* Implemented the client application as a Windows NT service with socket communication, multi-threading, and an FTP client application
* Used C++ interface/SQL to update/retrieve information from MySQL DB.
* Wrote Python scripts to manage end-of-day (EOD) tasks.

**Environment:** C, C++, STL, UNIX, Linux, g++, GCC, Python, WIN32, Windows, gdb, Aws, Shell Scripting, C#.

**Client : GE HealthCare WI Sep 2019 – Dec 2020**

**Role: C++ Software Developer**

**Responsibilities:**

* Prepare Design and Development Deliverables.
* Develop and Execute the Module Test Cases on Unit and Integration Testing environments.
* Peer Review of the Design and Source Code in C, C++, Embedded C, Java
* Proficient in QA processes, test strategies, and experience in testing documents like Test plans, test procedures, and Test Cases
* Collaborated with the engineering team members to define and develop new products.
* Used GIT/Git Hub and SVN for source code control.
* Followed Agile and Scrum Methodologies Application Programming Interface (API), written in C++ and C#.
* Develop UIS with JSP, JavaScript, HTML and CSS.
* Fixing the bugs according to the requirements. Implemented custom Gina DLL and Windows Hook DLL.
* Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions.
* Demonstrated solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments, and clear code. Created and maintained stored procedures, functions, and triggers in PL/SQL for implementing business logic and enforcing data integrity constraints.
* Performed performance tuning of SQL queries and PL/SQL code using techniques such as query optimization, index tuning, and SQL profiling.
* Implemented data migration and transformation processes using SQL and PL/SQL scripts to ensure seamless data transfer and integrity across different database platforms.
* Worked on MDVR system development on Embedded XP and Windows Embedded Compact.
* Analyzing, designing, and implementing change requests for the C/C++
* Prepared and installed solutions by determining and designing system specifications, standards, and programming in Desktop Framework
* Followed Agile Methodologies.

**Environment:** C, C++, STL, QT/QML, UNIX, Linux, g++, GCC, Java, IBM DB2, WIN32 multithreading, gdb.

**Client : Caterpillar IL Nov 2018- Aug 2019**

**Role: C++ Software Developer**

**Responsibilities:**

* Analysis of the Functional Specifications and Business Requirements
* Develop and Execute the Module Test Cases on Unit and Integration Testing environments.
* Peer Review of the Design and Source Code in C, C++, and Embedded C.
* Proficient in QA processes, test strategies, and experience in testing documents like Test plans, test procedures, and Test Cases
* Worked on IOT for microcontrollers in hardware layers
* Developing the CAN libraries to monitor internal vehicle variables in the field.
* Collaborated with the engineering team members to define and develop new products.
* Strong expertise using simulation tools like Canoe, Cadet, Vbench, and Ethernet.
* Used Python scripts to generate various reports like OATS, P&L, transaction history, user privileges, limit rules, and commission schedule reports.
* Used GIT/Git Hub and SVN for source code control.
* We are currently using Golang for generating APIs that interact with our front-end applications.
* Followed Agile and Scrum Methodologies Application Programming Interface (API), written in C++ and C#.
* Development experience with XML, JSON, TCP/IP, UDP/IP, and multithreaded applications using the IPC mechanism
* Fixing the bugs according to the requirements.
* Used QT5.0 to design and develop a monitoring system for online usage.
* Developed Microservices using Go language and developed corresponding test cases.
* Testing the machine equipment by using the ECM (Electronic Control Machine or unit).
* Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions.
* Demonstrated solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments, and clear code.
* Analyzing, designing, and implementing change requests for the C/C++
* Prepared and installed solutions by determining and designing system specifications, standards, and programming in Desktop Framework

**Environment:** C/C++, QT/QML, Linux, Golang, Canoe, Cadet, Kafka, GitHub, Docker.

**Client : Ericsson, NJ Aug 2017 – Oct 2018**

**Role: C++ Software Developer**

**Responsibilities:**

* Analysis of the Functional Specifications and Business Requirements.
* Prepare Design and Development Deliverables.
* Work on the Low Level and High-level Design Documents.
* Rewritten legacy libraries written in FORTRAN into high-performant multi-threaded C++.
* Developed gsoap C++ web services within process caching techniques for high performance.
* Design and develop solutions using C, C++, Multi-Threaded, Shell Scripting.
* Developed Oracle SQL queries, and stored procedures for Database Activities. Worked on DDL and DML statements including design of the tables.
* Peer reviews of the Design and Source Code (C, C++, and Shell Scripts).
* Built rpm packages for deployment.
* Integrated with Jenkins, migrated repo from SVN to Git along with history.
* Develop and Execute the Module Test Cases on Unit and Integration Testing environments.
* Support System Testing, Acceptance (UAT) Testing, and Production changes.
* Debugging and Troubleshooting production issues.
* Developed various reports in Python to connect to databases and generate CSV, fixed field length reports
* Development experience with XML, JSON, TCP/IP, UDP/IP, and multithreaded applications using the IPC mechanism
* Developed various monitoring alerts using Python to monitor logs for application errors.

**Environment:** C/C++, Python, Kafka, Shell Scripts, SQL, Qt/QML, Docker, LINUX.

**Client : Indmax, India June 2011- Dec 2014**

**Role: C++ Software Engineer**

**Responsibilities:**

* Designed, implemented, and maintained a multi-threaded server that received and processed acknowledgment messages from downstream applications regarding event data pushes using C++, STL, multi-threading, shell scripting, and UNIX.
* Involved in Software designing and development process in socket programming.
* Participated in the development of a multi-threaded publish/subscribe process which consisted of several subscriptions and push servers using C++, STL, multi-threading, shell scripting, and UNIX.
* Used Android's WIFI API to find and connect with a PC in the same network.
* Coordinating with vendor to determine RCA on a few occasions; by facilitating veritas and Solaris explorers, core dumps, and RHEL SOS reports.
* Experience in writing Shell scripts using Csh, bash, and Perl scripting for the process automation of databases, applications, backup, and scheduling to reduce both human intervention and man hours.
* Implemented additional rules and logic to provide indicative and corporate action data to new subscribers by extracting all the required information from the database, generating, and pushing messages using C++ and Rogue Wave.
* Implemented a SOAP Webservices client program which was used extensively to process and store in the database corporate actions data from various vendor feeds using C++ and Rogue Wave.
* Designed and developed a multithreaded process that generated breaks on income events and notified the users when underlying indicative data changed using C++, STL, and multithreading.
* Developed reusable C# libraries.
* Familiar with various designs and architectural patterns.
* Leveraged my knowledge of concurrency and design patterns.
* Created BASH shell scripts to automate corn jobs and system maintenance. Scripting and task automation using Crontab, Bash, and Korn shell scripting.

**Environment:** C++, STL, shell scripting, UNIX, WIFI API, RCA, RHEL SOS, Csh, bash, Perl scripting, Rogue Wave, SOAP, C#, BASH, Korn shell scripting.