**HARITEJA NEELISETYY**

**Sr C++ Developer**

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* C/C++ Software Engineer with 7+ years of experience specializing in financial industry and embedded firmware development
* Extensive C/C++ programming skills including multi-threading, Network Programming, SOAP services, STL, Boost and other libraries.
* Extensive experience in Shell Scripting using awk, sed, grep commands
* Expertise in developing Macros in C/C++, templates.
* Worked on Client/Server, SQL Server and Web based applications with 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.
* Good understanding and experience with I2C, SPI, CAN, PWM, UART in both firmware and RTOSs driver development.
* Proficient in static analysis tools like cppCheck and Coverity. Caught many severe bugs before production releases.
* Expertise in developing multithreaded network based client-server applications.
* Developed XML C++ SOAP web services on Unix and Linux platforms.
* Experienced with Programming Languages - Java and Prolog
* 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
* Knowledge if voice/video application over wireless network. Development experience with XML, JSON, TCP/IP, UDP/IP and multithreaded application using IPC mechanism.
* Possess in-depth understanding of ITIL based Service Management including Change Management, Incident Management, memory management, Problem Resolution, Business Procedures and Workflows of various organizations.
* Act as a point of escalation for Data Center and IT related issues. Ensured technical and process architecture solutions are documented & designed to support business requirements
* Strong verbal and written communication skills used to successfully develop presentations, write reports and draft correspondence.

**WORK EXPERIENCE:**

**Client: The Northern Trust Company, Chicago, IL July 2016 - Present**

**Senior C++ Developer**

**RESPONSIBILITIES:**

* Part of a development team to implement Equity Order Management system to accept orders from UI, FIX, send/route to Exchanges and other broker dealers and fill the trades in C++ on Unix and Linux platforms.
* Developed multithreaded cache offline program in C++ to support various UIs to deliver/process data for a scalable, high throughput, low latency applications.
* Wrote C++ programs for end of day operations (EOD) to close or roll the orders.
* Used STL extensively to store data on Order history, accounts, securities, etc. for fast retrieval/update.
* Worked with users, business and exchanges to gather new requirements/enhancements, testing and final delivery of sub systems.
* Developed SOAP web services for order and trade related information to display on UI. Used proprietary MQ to subscribe to order and trade updates.
* Used various data structures and design patterns in applications like Singleton, Observer, Factory methods etc.
* Handled corporate action events to reflect the order price and currently implementing the tick size changes.
* Developed/enhanced Visual C++ GUI applications that gather and generate statistics on investments and loans.
* Used C/C++ interface to retrieve/update info from/to the DB.
* Developed/enhanced as part of team to compute commission calculations based on commission rules and generate pdf reports.
* Modified C++ programs to support compliance rule automation for many compliance rules for client accounts for both pre-and post-trade compliance purposes and manage leverage using many metrics like industry exposure, security type, long/short positions, currency / securities / options / futures, credit ratings etc.
* Create Mainframe Suite (COBOL + JCL + IMS/DB2), based on technical analysis.
* Wrote various SQL stored procedures to compute several metrics like realized/unrealized gain/loss, forex rate effect and other data manipulation.
* Used Python scripts to generate various reports like OATS, P&L, transaction history, user privileges, limit rules and commission schedule reports.
* Used SVN and git/GitHub for source code control.
* Followed Agile and Scrum Methodologies

**Environment**: C, C++, Design Patterns, SQL, Python, bash, Visual Studio, POSIX Threads, SVN, git, GitHub, BOOST libraries, gdb, pdb, dbx, OpenGrok, Jira.

**Client: Ford Motor Company, Dearborn, MI Nov 2014 – June 2016**

**Senior C++ Developer**

**RESPONSIBILITIES:**

* Wrote Firmware/Fcode drivers in C for various SCSI and Gigabit-Ethernet hardware products.
* Firmware for a bootable serial ATA device, which uses Sil 3112A chip.
* Wrote UNIX Shell test scripts for testing various Network parameters.
* Testing various network configurations e.g. point to point, server-router-client configuration.
* Worked and implemented several Arduino based embedded systems
* Worked with Python and tested several modules for the product development
* Tested and regulated several Arduino systems for the control design. Tested the code design using python
* Worked with machine controls for the development and designing of the module. Knowledgeable in automation controls
* Used hypervisor virtualization for different machines to capture the control panel design
* Wrote reusable, testable and efficient code using python. Implementation of security and data protection using python.
* Designed and implemented low latency, high availability, and performant applications using python.
* Develop/maintain Board Support packages in Embedded Linux, Boot Loaders, and monitor BSP performance
* Creating the models in MATLAB and Simulink for GCU and BPCU functionality and applying the MBD process on the models generated.
* Implemented logics to install/update/upgrade software packages in Reprogramming Application Manager using QT interface.
* Programming and Changing UI screens using C++/QT Used multi-threading and thread synchronization extensively.
* Work as team developer on a variety of platforms including Windows, Linux (RHEL) distribution using C++, QT4, Boost, libcurl.
* Wrote C modules for Device Testing, used MFC for application framework and network development.
* Ascertained various bottlenecks for PCI devices, including PCI bridges, Memory, Multiple-Processor based systems.
* Responsible for web logic administration, maintenance and performance tuning using Java
* Providing support for the production floor, engineering floor.
* Designed and Successfully Implemented a Software Platform to create, deploy and bill various telecommunication products and services in real-time
* Implemented and tested several modules with Java
* Responsible for web logic administration, maintenance and performance tuning using Java
* Wrote a Multi-Language-support, TCL - IVR (Interactive Voice Response) Scripts for Voice over IP applications for complete call control and completion, supporting 10 languages.

**Environment:** C, C++, VXworks, PCI, SOAP, SQL, XML/JSON, Python, Java, QT, GTK+ Microcontroller, TCL-IVR, H323 VOIP, Python, Embedded C, Cisco, TCP/IP, LIN, RS 232, Zigbee, Windows, CPI, MFC.

**Client: Xerox Corporation, Norwalk, CT Oct 2012 – Sept 2014**

**C/C++ DEVELOPER**

**RESPONSIBILITIES:**

* Did programming in C on UNIX platform to contribute to the software project, which automated customized design process.
* Developed the initial version of the multi-threaded Object-Oriented C++ management application using Boost threads and designed with UML. Did unit testing of programming projects.
* Worked on Amazon Web Services (AWS) for a multitude of applications utilizing the AWS stack such as EC2, VPC, Glacier, Route53, S3, RDS, Cloud Watch, Cloud Trial, WAF, SNS and IAM, focusing on high-availability, fault tolerance, Load balancing and auto-scaling in designing, Deploying and configuring.
* Wrote a program in C, which converted programmer's interface between two different types database.
* Supported the integration of the core technology libraries into other user-friendly front-end applications Wrote SQL statements in conjunction with embedded database library to use SYBASE relational database.
* Identifying appropriate AWS service based on compute, data availability, security requirements and storage.
* Wrote a program in C, which parses computer logs and then displays the summary in automatically generated HTML files.
* Wrote a script in Perl, which in conjunction with version control system built a particular version of application.
* Contributed to make file project, which standardized all UNIX make files on the project.
* Wrote documentation for C programs written by myself and other programmers on the team.
* Worked on various Active Template Libraries (ATL) in various code optimization techniques.
* I was trained on the job in Agile software practices and I am familiar with fundamental ideas of Agile practice.

**Environment**: C, C++, SQL, PL/SQL, UNIX, Linux, AWS, Shell Scripting, Sybase, Perl Scripting, UML.

**Software Engineer July 2009 – Sept 2012**

**CLOUDEGEN - IN**

**Responsibilities:**

* Involved in development and implementation of SW system using C&C++ code.
* Utilized shell/bash and Perl scripting to reduce hands-on administration by 70% for the production start and end of day procedures.
* Designed, implemented and maintained a multithreaded server that received and processed acknowledgement messages from downstream applications regarding event data pushes using C++, STL, multithreading, shell scripting and UNIX.
* Participated in the development of a multithreaded publish/subscribe process which consisted of several subscriptions and push servers using C++, STL, multithreading, shell scripting and UNIX.
* Implemented additional rules and logic to provide indicative and corporate actions data to new subscribers by extracting all the required information from data base, generating and pushing messages using C++.
* Designed and implemented software drivers for body modules.
* 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.
* Optimized design and code for high performance and fixed various bugs.
* Used various data structures/design patterns like Observer, Singleton, Facade in software design.
* Wrote Python scripts to manage end of day (EOD) tasks.

**Environment**: Embedded C, C++, STL, Linux, g++, gcc, gdb, multithreading, Python, pdb, Shell Scripting, Oracle, SVN, event handlers, Observer Pattern, thread pools.

**Education:**

Bachelors of Technology, Jawaharlal Nehru Technological University, Hyderabad, India.

**ADDITIONAL INFORMATION**

**Technical Skills:**

**Programming Languages:** C, C++, Python, Shell Scripting (ksh, bash)

**Operating Systems:** RHE Linux, SUN Solaris, IBM AIX and Windows

**Languages:** C, C++, Java

**Scripting:** Python, UNIX Shell Scripting, Perl

**Databases:** Oracle, PL/SQL, IBM DB2, SQLite

**Debugging Tools:** gdb, dbx, pdb

**Code analysis Tools:** Source Navigator, OpenGrok, cppCheck, Coverity

**Build Tools:** Make, ANT

**Bug Tracking tools**: Clear Quest, Jira

**Configuration Management tools**: CVS, SVN, Git/Github

**Design Tools**: Microsoft Visio, Eclipse Plugins

**Libraries:** STL, threads, C++11, Sockets, smart pointers, numpy, matplotlib, Django.