# **PUJITHA**

# Associate Software Engineer



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### **CAREER OBJECTIVE**

Looking for an entry-level position as a Software Engineer in a dynamic firm that values my analytical and technical skills and provides scope for updating my knowledge, I seek a company that will help me contribute to its development while concurrently aiding my personal growth.

# SKILLS C++ VC++ STL MULTI THREADING WIN32 &

### **TOOLS:**

**MFC** 

- VISUAL STUDIO 2019
- GIT, GIT HUB
- SQL Server
- WINDOWS Platform

### **EXPERIANCE**

**COMPANY NAME:** ESoft Technology Solutions Pvt Ltd.

**DURATION**: October-2020 to till date

TEAM SIZE : 14

**LOCATION**: Bangalore.

### **Education**

- 2017
- MBA (HR-FIN)

MIC College of Technology, Kanchikacherla, Vijayawada.

- 2014
- BSC (COMPUTER SCIENCE)

Sri durga malleswara siddhartha mahila kalasala, Vijayawada

# **Professional Summary**

- 2.2 Years of IT Experience in application and product development using C++,VC++,WIN32 and MFC.
- Good knowledge in OOPS Concepts (Abstraction, Encapsulation, Inheritance and Polymorphism).
- Designed and implemented many dialog based as well as SDI/MDI applications.
- Good knowledge on Multithreading, Participated in various projects at various stages from conception to implementation and maintenance.
- Good exposure in structured finance and fixed income securities (MBS valuation and Risk analysis).
- Basic knowledge of production environment **debugging** and trouble shooting.
- Basic knowledge of design patterns.
- Good experience in STL Containers (vectors, list, map, and set), iterators, and Algorithms.
- Memory management in c++ code using Smart Pointers (unique\_ptr, shared\_ptr, and weak\_ptr).

# **Project Details:**

PROJECT: GBST Syn~Custody

CLIENT : Global Banking and Securities Transactions (GBST)

**ROLE** : Associate Software Engineer

**DURATION**: Oct-2020 to till date

TEAM SIZE : 14

**ENVIRONMENT:** C++, VC++, VISUAL STUDIO 2019, SQL, Windows Environment.

# **Project Name: GBST Syn~Custody:**

Syn~Custody is a comprehensive product. It meets all the business needs of a custodian including settlements processing, S.W.I.F.T. messaging, corporate actions processing, client billing, management and regulatory reporting. Syn~Custody is highly configurable allowing the subcustodian to seamlessly integrate into the global custodian networks.

Syn~Custody has been developed with the latest technology and makes use of client/server architecture. An open architecture allows it to easily interface with existing host systems. The system handles very large trade volumes efficiently and scales up to support a large number of users. There are no lengthy end of day batches. A powerful Security Management System controls access to the software and all user activity is logged.

A unique user interface allows clients to view their positions and trade status via the Internet. The module also provides on-line reporting and trade capture. This is a great efficiency tool for the custodians and their clients.

# Syn~Custody comprises of the following modules:

- CORE
- MESSAGING
- CORPORATE ACTIONS
- CERTIFICATE MANAGEMENT
- BILLING
- INTERNET INTERFACE
- ADMINISTRATION

**CORE** is the main module of SYN~CUSTODY®. CORE dynamic link library maintains all market specific data like security profiles, brokers, exchange rates and prices. It also maintains the client profiles and safekeeping accounts.

All settlement related processing takes place in CORE. Client instructions are tracked in CORE from initiation to settlement (and registration). A complete audit trail is maintained for all user activity. CORE is central to all other modules as other modules derive their data from CORE. A comprehensive access security system ensures that access to each of the options is only given to users according to their roles in the organization.

Cash Module, allows cash (as well securities) statements to be sent to clients via SWIFT/Fax/Email, cash transactions resulting from settlements and corporate events to be automatically passed to the local banking system, plus ad-hoc cash entries manually entered into Custody2000® for transmission into the banking system. Dual control is maintained at all times for security. Additionally there are powerful query and reporting facilities built into the system.

**MESSAGING module** receives client instructions in S.W.I.F.T. format. CORE module automatically converts client instructions (S.W.I.F.T. format) into a usable format after validating the contents of the messages. Messages are auto-repaired by SYN~CUSTODY where possible. Manual repair functions are also available to the users.

The module sends settlement confirmations and statements to clients via S.W.I.F.T. This module is highly configurable and messaging for each client can be scheduled. This module provides full support for a S.W.I.F.T. STP environment. All S.W.I.F.T. messages generated by Custody2000® can also be sent in the form of a fax or encrypted email automatically.

Corporate Actions module processes all types of corporate events relevant to the local market. The module processes both Equity and Debt instrument related corporate actions. The module supports automated event generation for bond interest and redemption, automated generation of entitlements for all events and events payment processing. The module sends event notification, entitlement notification, payments and pending corporate actions messages via S.W.I.F.T., fax or encrypted email to clients.

**BR Module** business rules are defined for each event in the system. The following types of events are available as standard event types:

- Cash Dividends
- Stock Dividends
- Bonus Issue
- Conversions
- Stock Split
- Redemption
- Interest Payment

**CERTIFICATE MANAGEMENT SYSTEM (CMS) module** is an Inproc-DII(COM) of Syn~Custodyrecords and keeps track of physical certificate movement to/from the vaults. Management controls have been built into the system to enforce separation of duties between the operations staff and those assigned to the vault.

Four transaction types are available:

- 1. VAULT IN To record certificates coming into the vault.
- 2.TEMP OUT to mark certificates temporarily out of registration (where re-registration is required after receipt of certificates).
- 3. TEMP RETURN To record incoming certificates from registrars after registration.
- 4. VAULT OUT To permanently remove certificates from the vault.

Maker/Checker functionality (dual control) ensures involvement of two people in each of the above-mentioned transaction types.

Powerful query options allow any certificates related data to be extracted for use by the vault staff / management. Query reports can also be used to assist in the vault count. A reconciliation report highlights differences between the positions in Core and the Certificate Management System.

Query options allow the users to view vault transactions or certificate data. For example users can list all certificates that are due from registrars.

**BILLING module** calculates the fees due to the custodian bank. It maintains client fee structures for various types of services.

The fee schedules can be set up for any number of service types. Standard services include transaction settlement (by transaction type), safekeeping of securities (by location and product type), credit utilisation, amendments to instructions, message repair etc. Other user-defined services can be set-up. Fee schedules can be set up on a tiered or sliding scale basis.

Invoices generated from this module are highly detailed, incorporating total asset value, number of transactions, charge in local and billing currency (where the billing currency is not the same as the local currency), details of the existing tariff, and a sub account by sub account breakdown of all assets held, their individual instrument valuations, and individual transactions per sub account (where a single client relationship consists of more than one trading account) Bills can be sent to clients via fax or encrypted email.

# Roles and responsibilities:

- Developed BI Objects using OOPS Concepts, and Design Patterns Singleton, and Factory.
- Developed COM objects which enables the ASP developers to call register, renew, delete certificates.
- Involved in the development of messaging engine which provides the end-user with a library of predefined MSG's and the ability to create custom MSG'S with access to any data point within the system
- Involved in RULE module which allows users to define business rules to a trade, which can then be aggregated, viewed and reported on multiple levels
- Developed MFC Custom Controls for the reports of BILLING system module which allows endusers to create their own fields and track unlimited data within the application.
- Implemented Default, Prepay/Loss, Severity Cashflow Scenarios using STL vector, and map containers.
- Loan Admin Alerts implemented using Observer design pattern, while parsing the ramp files which contains rate resets and maturities.
- Understanding the Doc/View Architecture Module for standard reports and real time data views
- Involved in the Managed C++ code, while integrating the legacy application with .NET Application.
- Updated existing Static Libraries, and Dynamic Link Libraries.

**Pujitha**