

# Akhileswara Reddy

## Modern C++ Developer

### CONTACT



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Ongole, AP.

### CAREER OBJECTIVE

To work in an Organization in close Co-operation with my peers and seniors, with the intention of enhancing my knowledge and simultaneously contributing my skills, attributing to success profile of my company and myself.

### LANGUAGES

- C
- C++
- VC++
- C++11 / 14
- MFC

### SKILLS

- VISUAL STUDIO 2019
- GIT
- STL
- MULTITHREADING

### WORK EXPERIENCE

Company	: PROSPER INFORMATICS PVT LTD.
Designation	: Software Developer.
Duration	: Sep 2020 to Till date.
Location	: Chennai.

### EDUCATION

**2016-2020**      **B.tech (CSE)**  
JNTUA University - RGM CET

**2014-2016**      **Intermediate (MPC)**  
Sri Chaitanya Jr College, Ongole.

**2013-2014**      **X class(SSC)**  
Honey High School, Kanigiri.

## Professional Summary

- **2.3 years** of work experience as a Software Developer in **C++ 11/STL containers** and **Algorithms**, and **GUI** Programming using **Microsoft Foundation Class Library(MFC)**
- Has exhaustive experience across various technologies such as **C++ 11, ATL COM and MFC Document/View Architecture.**
- Hand-on experience in **MFC** Control Customization, Modal/Modeless **Dialog Box GUI Coding.**
- Hands-on experience in developing DLL's (Regular and Extension) and **COM DLL (Inproc Server)**
- Involved in Managed **C++ (C++/CLI)**, Marshalling in Managed and Un-Managed Environment.
- Hands-on experience in **Multi-Threading and Synchronization, MFC Worker and UI Threads.**
- Hands-on experience in using STL Containers (Sequential, Associative, and Adaptors) and Algorithms.
- Hands-On Experience in coding using **C++ 11, STL Containers, Multi-threading and synchronization objects (lock, mutex, lock\_guard, condition\_variable).**
- Good knowledge in developing backend software using **C++11, and memory management using smart pointers** like **unique\_ptr, shared\_ptr** and **weak\_ptr.**
- Good knowledge in design **patterns - singleton, observer, factory, and software architectural patterns MVC and Dependency Injection.**

## PROJECT DETAILS

<b>Project Title</b>	: The Aladdin Enterprise Investment System.
<b>Client</b>	: Black Rock, New York
<b>Role</b>	: Developer
<b>Team Size</b>	: 13
<b>Duration</b>	: April 2020 To Till Date
<b>Environment</b>	: C++, VC++,MFC,WIN 32 API,SQL Server 2015,Visual Studio 2019

## Description

The Aladdin® Enterprise Investment System is a suite of products consists of Trade ALO, Portfolio Administration and Risk Analysis

A desktop and network-based Distributed Processing System, this database-driven Enterprise System can be scaled to meet the needs of small hedge funds as well as major market dealers. Aladdin® is a versatile and easy to use tool for both front office and middle office functions

The Aladdin® solution is a comprehensive Microsoft Technology (MFC- Doc/View) -based application for valuing, and managing risk of structured finance products.

Its underlying industry standard models are powered by the state-of-the-art high performance BlackRock analytics and it is designed to integrate seamlessly into BlackRock's database and cash flow engine. Aladdin® runs using a user-provided loan level prepay model, a loan level loss model as well as a custom interest rate generator Integration of Prepay, Loss, and Severity models at custom collateral grouping levels. Portfolio Management capability so users can manage and run multiple scenarios on entire portfolio of securities, even multiple portfolios, efficiently

An open architecture Collateral Compiler that incorporates data from multiple sources including Risk/Prepayment models, loan level data providers, credit bureaus, servicers, and rating agencies.

## Roles and Responsibilities

- Developed interest rate model using Hull-White dynamic, Built **C++ library** of generics and developed pricing tools for Callable Bond and other interest rate derivatives.
- Developed **C++** high dimensional robust portfolio optimization engine with **STL algorithms/data structures** and interfaced in .NET Frame work.
- Analyzed liquidity events (index review) Developed **backtesting** software in **C/C++**.
- Examined a duration-hedged portfolio's interest rate exposure using Principal Component Analysis.
- Calculated Option-Adjusted Spread for an MBS by generating 500 paths for 1mth LIBOR forwards and interpolating the prepayment speeds with Bloomberg's PSA Forecast.
- Generating risk analytics reports for portfolio managers on fixed income securities and equities in more than 50 portfolios.
- Implemented Managed C++ Assembly to carry out marshalling, where we need to integrate legacy C++ application to .NET Framework applications.
- Configured cloud-watch events rule for GuardDuty to send custom SNS notifications for Un Authorized access to EC2/Torip Caller.
- Configuring and Managing IAM users and roles. Creating Customized IAM policies for various AWS resources to ensure only required access to required resources.

*Akhileswara*