

Binay Kumar Singh

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C++ Lead Developer/Architect

Current Location: Bangalore

CORE COMPETENCIES

Multi-threaded server
Programming
C++ 11/14 , STL
Design Patterns
UML
Shell scripting
Java/Spring Boot/REST/
Microservices
MS SQL , Sybase
AWS/EMR/Scala/Spark
High Frequency and Low Latency
Real Time applications
Development
MS SQL / Sybase/NO SQL
Agile/Scrum

PROFILE SUMMARY

- Strategic Software **Architect** over a decade of experience in design and development of applications,
- **12 years** of work experience in **architecting** and developing the application mostly on **C++ and Java**.
- Good exposure to build **distributed systems** and applications on data engineering platforms (**AWS /EMR/Scala/Spark**).
- Good knowledge of **microservices** (Spring/ **Restful API**) and Java based Technology.
- Hands on developing High Frequency and **Low Latency Real Time applications in C++**.
- **Sound Knowledge of Financial products Equity , Mutual Fund, Options , FX, Market Data and Derivatives**.
- Experience in RDMS , **MS SQL, Sybase** and develop **Stored Procedures and triggers** , Exposure with modern **NoSQL DBs**.
- Strong leadership skills in **managing client relationship**, extraordinary ability to spot talent, assign right people in right places and build high-performance cross culture teams.
- Hands on working **onsite offshore model** and application delivery with an indomitable focus on continuous process improvement.
- 12 Years of experience in working with **Investment Banking and Financial domain clients (Goldman Sachs , Charles Schwab(TD Ameritrade) ,**

PROFESSIONAL EXPERIENCE

Company	Designation	Duration
Mphasis Ltd, Bangalore & USA	Architect / Lead Developer	June 2010 to till date. Onshore (USA) : 8 Years

Technical Competencies

Programming Language : C, C++ 11/14, Java, PL/SQL, Shell Scripts, Python, Scala

Database : Sybase, MS SQL Server, MySQL, SSIS, Oracle, MongoDB

Methodologies/Architectures : Safe Agile, Agile, SCRUM and Microservice architecture.

Cloud Technologies : AWS EC2, AWS S3, EMR, Dynamo DB

Work Experience

Program Name	SecDB Platform Modernization
Client	Goldman Sachs
Duration	Jan 2020– Current (Bangalore)
Environment	RHEL 8.0, VS 2017, C++, Bazel, Conan, Python, Make file, Python, Git, JIRA, Agile
Role	C++ Lead Developer

Description : Goldman Sachs's SecDb platform uses proprietary language called 'Slang'. This Slang's compiler is built using C & C++ languages. It has been using older version of C++ and currently builds for gcc 4.4 and VC 10 platforms. Aim is to upgrade and certify compiler code base to C++ 14/17 standards and subsequently should be able to compile on gcc 6 and vc15.

Responsibilities undertaken during the project execution:

- Analyzing external libraries and project dependencies and preparing the dependency chart.
- Architecting for the build third party libraries like MKL (Math Kernel library), libxml2, bzip2, Graphviz and wxwidgets etc. using Conan build and package manager.
- Designing Integration plan with built libraries to slang code base, test, deploy and fixing the bugs related to the same.
- Handling team issues, code reviews , QA coordination , handled team of size 8.

Project Name	Investools, TDA Education
Client	TD Ameritrade (USA)
Duration	June 2015– To Dec 2019 (Jersey City, USA)
Environment	VS 2008, C++, Java. Struts, Spring Boot, Microservices, JIRA, Scrum, MS
Role	C++ Lead developer and Architect

Description of Project:

The Project is about providing deep insight of fundamental and technical aspect of understanding the Stock market so that investment strategy can be decided by Investor and Traders. The application provides set of tools, Videos, Live Training, and real-time chart application with trading capability with paper/virtual money.

- Tech architect and lead developer for Investools' back-end "Tick Engine" (**developed in C/C++**), which was responsible for receiving and storing market data from various feed providers, and for providing intra-day market data to Investools' charting front end.
- Developed Tick parser for DDF and CTF data formats provide by IDC.
- Developed multithreaded Server-side application for real-time financial data repository using Data structure Trie.
- Developed an HTTP interface that provides means of making query to the real-time data repository.
- Implemented UDP socket and Multicasts for communication between MX and MM servers.
- Developed Interface that can listen multicast data and can push it to real time data repository
- Developed memory mapped files to manage high volume financial data.
- Involved in implementing performance and robustness enhancements.
- Fruitfully executed transition and established offshore team for Market Maker application.
- **Migration of Java struts based code bas to microservices based architecture using spring Boot and Restful API.**
- Understanding the client's vision, goals, objectives, strategy, tactics, and how they relate to enterprise IT architectural business objectives and latest technology.
- Transformed the small team into a high performing team delivering critical application development and maintenance for TDA project.
- Code reviews, Team handling and resource management for onshore agile **team of size 8**.

Project Name	ACFI – GLAAM
Client	Société General
Duration	From July 2010– May, 2015 (Bangalore)
Environment	Windows and Linux, C++, Sybase, MS SQL Server, JIRA
Role	Project Manager

Description of Project:

Developing platform services for ACFI business unit so that other accounting systems can use the framework to develop the application.

Responsibilities:

- Deputed at customer site, Socgen Development Centre as Tech Project manager for development of the Platform services in C/C++ , MS SQL/Sybase
- Managed Mphasis techies at client location SG, for the development and maintenance task, covering all design and development issues, code reviews, production release and support.
- Developed multiple applications for ACFI business unit, GLAAM and Reconciliation tool was the main application was delivered.
- Completed many improvements like Reduced deployment time and errors by implementing automated deployment tool.

ACADEMIC QUALIFICATIONS

- **Masters in Computer Application** from, Agra University, Agra