

Contact

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Top Skills

C++
Python (Programming Language)
DevOps

Rajat Girotra

Exchange/Market connectivity | AI LLM Langchains | C++ | Python |
Financial IT | DevOps | 2x AWS Certified
Singapore, Singapore

Summary

Software Lead adept at application development, testing and optimization. Excels at C++ software development, low latency programming, including coordinating ground-up planning, programming, implementation and maintenance of core modules.

Experienced in development of front office trading platforms, middle office risk/PnL systems & back-office clearing and settlement systems for multiple asset classes.

- 1) FX
- 2) Equities
- 3) Futures & Options (Derivatives)
- 4) Fixed Income

Experience

Citi

Senior Vice President

December 2023 - Present (1 year 7 months)

Singapore, Singapore

Credit Suisse

Vice President

November 2020 - December 2023 (3 years 2 months)

Singapore

- Involved in design and development of trade execution platform for APAC capital markets, focusing majorly on exchange connectivity and market connectivity protocols like FIX, ITCH/OUCH/OCG/Arrowhead etc.
- Worked on developing pre-trade risk checks and controls including both price based checks and position based checks for our clients.
- Modernized & upgraded the technology stack & built a CI/CD pipeline & optimized processes, people and tooling
- Introduced new tools & compiler in the team like gcc 11.2, conan (C++ package manager), Docker, CMake3, Ninja & Jenkins.

- Built a python bot to aid in different stages of software development like triggering nightly builds, artifact deployment, raising requests for change, monitoring UAT and Production hosts.

Deutsche Bank

Analytics Expert - Fixed Income and Currencies

July 2019 - October 2020 (1 year 4 months)

Singapore

- Responsible for delivery of Risk and P&L platforms and applications for Rates, Credit and Emerging Markets trading businesses globally.
- Build-out of Global Markets strategic analytics platform in partnership with Group Technology and Operations (GTO)
- Deliver immediate book of work already identified within the Bank's CIB Global Markets, focusing on Credit Trading business
- Enable balance sheet work and portfolio analytics including Value at Risk (VAR), Risk Weighted Assets (RWA), Credit Value Adjustment (CVA)/Funding Valuation Adjustment (FVA)/Debt Valuation Adjustment (DVA), and existing risk processes.
- Improved the automation of all Profit and Loss (PnL) processes and existing risk processes and enable appropriate controls

Credit Suisse

Software Engineer - Compliance | Equity Markets | Market Making

June 2016 - July 2019 (3 years 2 months)

Singapore

Communicate with Business and other project stakeholders for prioritizing work activities, discussing design and implementation plans and ways to quickly productionize new features.

Responsible for development, optimization and maintenance of the Global Compliance Engine for the bank. The Engine implements all pre-trade control checks from a regulatory and compliance point of view.

DRW Trading Group

Software Engineer - Global Future Strategies

July 2015 - May 2016 (11 months)

Focused on Futures trading development on CME, OSE, SGX and EUREX, involving market data processing, writing trading strategies, latency analysis of software stack and order routing protocols.

Standard Chartered Bank

Software Engineer - FxECommerce | Money Markets

March 2013 - June 2015 (2 years 4 months)

Develop banks internal system for pricing, trading, booking & STP of FX trades & Money Market time deposits for their wholesale banking clients.

ION Trading

4 years 3 months

Software Developer

February 2012 - March 2013 (1 year 2 months)

I worked on a re-engineering project developed by ION. The old ION back office system(s), were being reworked using Java and the ION platform. It was a complete accounting and management system for use by traders and brokers of futures and options. The project used information that was entered via feeds (or manually) and produced End of day (EOD) results based on algorithms applied by exchanges (delivery, exercises, assignments, closeouts, margin calculation etc). The project integrated with other ION products to produce customer/user reports for EOD regulatory reporting as well.

Team Lead

January 2011 - February 2012 (1 year 2 months)

As a technical mentor, I was leading a Back Office team of five engineers. My work involved development of Back Office Systems for derivatives markets (Both Exchange Traded and OTC) .

Major part of my work involved understanding of functional specification and writing technical specifications for implementation of algorithms for calculation of margin figures, Profit & Loss statements, Mark to Market and Variation Margin for future & options trades for our clients who trade in more than 70 future and options markets around the globe.

I was responsible for documentation, implementation, unit testing, taking our features into production, maintenance & support of our work.

My primary language of development is C++ with Core Java as a secondary skill.

Software Engineer

January 2009 - December 2010 (2 years)

My work at ION:

1] Involved implementation of algorithms for calculation of margin figures for our clients who trade in more than 70 future and options markets around the globe. My primary language of development was C++ with some bit of Java which was the front-end.

2] Providing out of office hours support on critical client issues.

3] Working closely with the BA's & the testing team to help them setup their environment for testing.

4] Interviewing potential candidates for new job opportunities.

NXP Semiconductors

Senior Software Engineer

August 2008 - December 2008 (5 months)

India

I worked on the Display Subsystem of Set Top Box; primarily on stabilizing clock recovery and Audio/Video Sync issues for all types of Interlaced and Progressive streams.

I have a good understanding of HD/SD, NTSC and PAL standards.

Conexant

Senior Software Engineer

August 2006 - August 2008 (2 years 1 month)

India

I worked on different domains in my 2 years tenure with Conexant.

Started off with porting of the STB driver API's from Nucleus to Linux operating system. This activity helped me in gaining an insight into the Linux Kernel; understanding Linux User and Kernel Space; how memory is managed; how to program kernel modules; and other intricacies involved.

Later I went on to support all phases of development of de-multiplexer (demux) device driver of Set Top Box. Access client needs, plan and implement features from initial conceptual design through coding, and final delivery. This activity helped me in thoroughly understanding the MPEG-2 Systems Layer; PAT, PMT, NIT, PES syntax and structure along with DVB & DTV standards.

I supported critical customer requirements, issues and releases.

C was used as the primary programming language.

Motorola Home India

Software Engineer

September 2005 - August 2006 (1 year)

India

Motorola was a great learning experience for me. I was new to embedded technologies so had to pick up really fast to get up to speed with the rest of my team.

My work involved development of various application modules of Set Top Box such as Front Panel Displays, On Screen Diagnostics (OSD) and Conditional Access. I programmed in C++ and used Rational Rose UML for my designs and use-cases.

Education

Guru Gobind Singh Indraprastha University

Bachelor's degree, Computer Science · (2001 - 2005)