# **Vishal Salgotra**

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### **Summary of Skills**

- Software Engineer with 6 years of experience in OOP, C/C++ and Linux.
- Strong Debugging, Application Optimization and Problem solving skills.
- Experience of Test-Driven Development and Refactoring Legacy code.
- Experience of Low latency application development for Algorithmic Trading and High Frequency Trading.
- Speaker at local user groups and conferences.

#### **Technical Skills**

Languages: C++, C.

Operating System: Linux, Windows.

Tools &Technologies: C++11/14, STL, BOOST, BOOST Unit Test, GCC, GDB, OOPs, TDD,

FIX, FAST, Quick FIX, QuickFAST, Lint, SVN, GIT, CMake

# **Work Experience**

#### March, 2017 – Present

### Associate - Application Developer, J.P. Morgan

Responsible for design and development of a Distributed Data Store with an agnostic persistent layer and fast notifications of data changes to all subscribed clients.

# January, 2014 – March, 2017 Senior Software Engineer, Estee Advisors

Design, Development and support of Low Latency Trading Platform and associated components for High Frequency Trading and Algorithmic Trading.

**Role:** Market Data Parsing, Optimization of latency critical applications, C# Interoperability for C++, Data Log Analysis, Production Support.

- Designed and developed low latency market data adapters for Chicago Mercantile Exchange, NASDAQ, Singapore Stock Exchange and National Stock Exchange.
- Optimized Legacy Market Data adapters. Decreased latency by a factor of 10.
- Developed core C++ library(with C# Interop) containing artifacts like ProCon Queue, Lock Free Circular buffer, Object Pool, Application Logger etc.
- Implemented a fast Lock Free Circular Buffers that can be used by multiple threads without having locks on it.
- Developed a FAST (FIX Adapted for Streaming) decoder with a latency of 60 μs at 95 percentile).

• Designed and developed a modular and scalable Tick-by-Tick market data adapter handling x million ticks per second with a latency of 10  $\mu$ s, 20  $\mu$ s, and 40  $\mu$ s for 50, 95 and 99 percentile.

# March, 2011 – January, 2014 Software Engineer, Aristocrat Leisure

Design and Development of slot based Casino games (Gen7, EGP, MK6) complying with various jurisdictional requirements using C and C++ on Linux platform for Electronic Gaming Machines.

**Role:** Gameplay Programming, Probability based mathematics design and implementation, Audio-Video Library Integration, Legacy Game Engine Refactoring.

- Built a Robot Test API that simulates human playing a game thereby providing auto play functionality.
- Developed Code Generators for mathematics test harness and mathematics implementation in slot games.
- Shipped many popular Games like There's the Gold, Pyramid Magic, Enchanted Heart, Queen of Atlantis and Dragons on the Lake

# **Open Source and Educational Projects**

### **QtOpenAL API for Qt Framework**

QtOpenAL (Open Audio Library) is a platform independent Qt/C++ wrapper library under development that makes it easy to use OpenAL in Qt applications for multichannel three dimensional positional audio.

Technologies: C++, Qt, OpenAL, Alure, Cmake.

### **Electrical Appliances Controller**

Application software that with the aid of a specialized hardware can control the electrical appliances; offering features like timer controls and voice recognition.

Technologies: C, C++, MS Speech Recognition SDK.

#### Education

Qualification	Session	Institute	Percentage
Master of Computer Application	2008-11	University of Jammu	75.13%
Bachelor of Computer Application	2005-08	University of Jammu	70.24%

#### **Personal Details**

Father's Name Sh. Baldev Raj Date of Birth 11<sup>th</sup> March, 1988

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