

# SYED ALI ABBAS GARDEZI

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## Professional Summary

Cloud architect with extensive experience in all aspects of financial services technology. Strong understanding of low level network protocols, low latency trading architectures, market data, software development, big data and data analytics including visualization, cloud application and infrastructure architectures and devops tools

## Skills

- C#, C/C++, Java, Go, Python, SQL (SQL Server, Oracle, Postgres, Teradata etc), Elastic Stack, R, Database Management, Ansible, AWS, Terraform, Packer, CDK, GCP, Wireshark, GIT, SVN, Jenkins, Linux, Windows, LDAP and AD, Security, Jira, Remedy, Control M
- Market Data, Equity Trading Platforms, FIX, Low Latency Architecture, Software Design, Distributed Application Design, Network/Latency Analysis and Capacity Analysis, Application Performance Analysis

## Certifications

- AWS Certified Solution Architect

## Experience

Senior Solution Architect EMEA ▪ 2019 – Current  
Amazon AWS

## Roles and Responsibilities

- Worked with enterprise clients and partners to develop cloud migration and adoption strategies

Chief Architect Cloud Centre of Excellence and Engineering ▪ 2018 – 2019  
London Stock Exchange Group

## Roles and Responsibilities

- Designed a multi account public Cloud on boarding and migration strategy (AWS, GCP)
- As part of the cloud on boarding and management of accounts designed a system to automatically create and manage approved accounts based on approvals within the group. All accounts are created in a standardized way using Infrastructure as code, along with the relevant guard rails, monitoring, central logging, connectivity to direct connect and VPN plus Transit Gateway.
- Designed and implemented central shared services in AWS such as DNS (including resolution of on prem from cloud and vice versa), central internet proxy, CI/CD tooling
- Worked with different application teams to design and build AWS based solutions. Designed and built an AWS based trading system for trading CFD as part of the Turquoise Exchange.

Head of Application Engineering & Performance ▪ 2009 - 2018  
London Stock Exchange Group ▪

## Roles and Responsibilities

- Responsible for running the Application Engineering and Performance Architectures team. The team has 4 software architects and is responsible for identifying new technologies to help improve the Exchanges real time trading system (Millennium) with regards to performance, data analytics, and supportability. Looking at new technologies such as cloud, big data and machine learning.
- I have designed the cloud strategy for the Equity trading business and have overseen the creation of an architecture that allows QA and Application support teams to request and provision test instances of the Equity Trading system (Millennium) in the AWS cloud on demand. This has been achieved by using tools such as Terraform, Packer, Ansible, and Puppet. This has given the team the ability to quickly test and analyse new releases developed by MIT software (a subsidiary of the exchange)
- Designed and developed (I was the architect and lead developer) a real time latency calculation system for the exchange (developed in C# & C++) that captures every network packet coming into every market facing firewall of the exchange, understand all TCP/IP flow control and recovery algos on the networks and extract all trading protocol messages (FIX, Native, ITCH Market Data etc) enhanced with an accurate hardware timestamp. The decoded messages are then stored in a database (SQL Server) and available to the business teams to answer customer queries including providing latency analysis.
- Designed and implemented a real time dash-boarding and analytics system using the Elastic Stack (Elasticsearch, logstash, kibana & Beats). This provides the business and monitoring teams with a real-time view of application performance, server performance, log analysis with alerting of issues and machine learning for issue detection and outage prevention across the server and application estate of the exchange. Currently working with the wider exchange group to create a big data strategy for the exchange business.
- Worked closely with the head of the equity business in the exchange to design tools and analytics engines in order to provide a better understanding of how exchange clients use the trading system and how to improve their user experience.
- Run Technical Deep Dive sessions with Exchange clients such as High Frequency Trading firms in order to provide them with a better understanding of the real-time trading system and help them get the most out of the trading system.
- Assist the networks teams in analysing and identifying potential network issues that might be causing application outages and customer connectivity problems including firewall/network switch issues.

## Experience

Team Lead Application ▪ 2007 - 2009

London Stock Exchange Group ▪

### Roles and Responsibilities

- Team lead of the Application and DBA team responsible for all systems downstream of the Trading system. The team consisted of 4 application developers and 3 DBAs
- Designed and developed the real-time data warehouse for the London Stock Exchange using C# and Oracle.
- Designed and developed a number of analysis engines using the data captured in the warehouse including the charging system for the London Stock Exchange used to calculate the charges for all real time trades performed on the Equity trading system.
- Dealt with data extraction and transformation requests for the customers of the exchange.

## Experience

IT Consultant ▪ 2004 - 2007

Accenture ▪

### Roles and Responsibilities

- Software development consultant in the Financial Services team at Accenture
- Worked as a consultant at the London Stock Exchange engagement of Accenture
- Developed Infolect which was the real-time market data delivery system developed in Windows and C#
- Developed TradElect which was the real-time trading system of the LSE developed in Windows and C#

- Developed transaction reporting systems for reporting trades from the Exchange to the FSA (FCA) using Java.

## Education

University of Sheffield

2004 ▪ MSc Advanced Computer Science

- Winner of the Microsoft Imagine Cup UK competitions in software design and 6<sup>th</sup> in the world wide final in Brazil
- Top ranked squash player

Lahore University of Management Science (LUMS)

2003 ▪ BSc (Hons) Computer Science and Mathematics

- Graduated with distinction (GPA: 3.91)
- President of the local IEEE and ACM chapters
- Top ranked squash player and captain of Squash and Hockey teams

## References

References on request