

Chathura Colombage

SOFTWARE ENGINEER · SOLUTIONS ARCHITECT

London, United Kingdom

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“Festina lente”

Summary

Pragmatic developer who enjoys writing well tested code in a variety of platforms and languages specialising in back-end technologies. Equally comfortable writing high performance multi-threaded code in Java/C++/Scala, writing model checking code in Coq, and data analytic code in Spark and Python.

AWS Certified solutions architect with more than three years of hands on AWS cloud experience looking to expand know-how on multi-cloud and Kubernetes environments.

Work Experience

BlackRock

SOFTWARE ENGINEER, ASSOCIATE

- Part of the Aladdin Product Group (APG)

London, UK

Apr. 2022 - Current

Quantcast

SENIOR SOFTWARE ENGINEER

- Part of the inventory team responsible for real-time bidding (RTB) stack handling 3.5M req/s in less than 100 ms
- Implemented new functionality in RTB components in Java to support notification handling and add support for OpenRTB CTV/OTT device bidding
- Extended RTB stack integrations with exchange partners to add support for OpenRTB formats, such as native bidding
- Wrote data processing jobs in Spark and Python and data analysis jobs in SQL on Snowflake
- Wrote mission critical gRPC micro services in Java supporting the RTB stack with Spring Boot
- Investigated and fixed multiple customer critical production issues as part of the on-call

London, UK

Oct. 2019 - Feb. 2022

Qlearsite

SOFTWARE ENGINEER

- Added new functionality to in-house data analytic engine in Scala
- Developed and improved garbage collection mechanism in the persistence layer of the in-house analytics database
- Enhanced embedded query engine based on Jython to support better introspection and wrote custom functions in Python
- Wrote the core Excel integration module for the data analytic engine using Apache POI library in Scala
- Upgraded Jenkins build setup to a unified declarative (YAML) process with Python and Groovy
- Implemented a POC Clojure library and web service for flexible and powerful domain driven data validation based on Clojure spec

London, UK

Jun. 2018 - Sep. 2019

ParaFormance

SOFTWARE ENGINEER

- Implemented a bespoke profiling tool based on automated C++ refactoring using LibClang and other LLVM technologies
- Developed Python performance testing suite for benchmarking utilising Docker
- Developed a bespoke licensing module with RSA encryption using C++/OpenSSL
- Ported common C++ benchmark problems to Windows platform using CMake and PowerShell scripts
- Helped to integrate discovery tool to editor Plugins - Eclipse CDT (Java) and Visual Studio (C#)

St Andrews, UK

Sep. 2016 - Dec. 2017

Gold-i

SOFTWARE ENGINEER

- Gold-i is one of the leading MetaTrader integration solution providers in the world
- Developed an industry first Bitcoin feeder for MetaTrader platform with C++
- Developed a Reconciliation Engine for the MetaTrader platform in C#
- Bespoke Oracle database solution for MetaTrader platform in C++
- Ported core MetaTrader libraries to .Net with managed C++ forming the foundation for company's .Net based tool suite
- Participated in the interviewing process for new recruits and mentored junior developers on C# and WPF best practices
- Developed REST web services integrating MetaTrader platform with a client back office system in C#, and implemented FIX protocol based extensions to facilitate custom back office processing

Surrey, UK

Sep. 2012 - Sep. 2014

IFS R&D International

SOFTWARE ENGINEER

- Advanced training in Oracle database technologies and PL/SQL
- Development and maintenance of ERP applications using PL/SQL and Centura development platform

Colombo, Sri Lanka

Apr. 2011 - Sep. 2011

Education

University of St Andrews

PHD IN COMPUTER SCIENCE (DROPPED OUT)

- Functional programming in Haskell
- Dependently typed programming in Coq and Idris
- Modelling and writing correctness proofs for algorithms in Coq
- Benchmarking and writing heterogeneous multi-core algorithms in C++
- Teaching and lab assistant work in multiple undergraduate modules

St Andrews, UK

Sep. 2014 - Aug. 2018

University of Surrey

MSC IN INTERNET COMPUTING (DISTINCTION)

- Thesis: Comparative Study of Gaussian Processes and Ensemble Methods; Supervisor: Prof. Yaochu Jin
- Cloud computing project: Google AppEngine based value at risk calculation project in Python
- Enterprise application development project: Community ranked Q&A site using Spring 3 MVC web technology

Surrey, UK

Sep. 2011 - Sep. 2012

University of Colombo

BACHELOR OF INFORMATION TECHNOLOGY (2.1)

- Project: Online Gem Auction System in Grails

Colombo, Sri Lanka

Oct. 2006 - Dec. 2010

University of Colombo

BACHELOR OF SCIENCE

- University colours in rowing

Colombo, Sri Lanka

Jun. 2007 - Sep. 2010

Coursera

MOOC

- Kotlin for Java Developers (2021)
- Functional Programming Principles in Scala (2013)
- Ancient Philosophy: Plato & His Predecessors (2021)
- Ancient Philosophy: Aristotle and His Successors (2021)
- Søren Kierkegaard - Subjectivity, Irony and the Crisis of Modernity (2021)

Online

Certifications

2021 **AWS Certified Solutions Architect – Professional**, Amazon

2021 **AWS Certified SysOps Administrator – Associate**, Amazon

2021 **AWS Certified Developer – Associate**, Amazon

2020 **AWS Certified Solutions Architect – Associate**, Amazon

Technical Skills

Proficient in: Java · C++ · Scala · Python · C# · Haskell

Familiar with: Go · Rust · Kotlin · Bash · Powershell

Web tech: gRPC · REST · Spring MVC · Spring Boot

Databases: MySQL · PostgreSQL · Oracle · Hibernate · JOOQ · NHibernate

Data: Spark · Snowflake · Pandas · Saddle

Libraries: Boost · POCO · Fastutil · Guava

DevOps: Terraform · Ansible · CloudFormation · Puppet

Misc: Git · Linux · Docker · Aerospike · Kafka

Miscellany

Interests: Functional Programming · Software Verification · Philosophy

Hobbies: Reading · Running · Hiking · Chess

Languages: Sinhalese (*native*) · English (*full proficiency*) · Italian (*basic*)

Writing: Blog