

Solutions oriented Lead developer with extensive experience delivering projects in direct support of business objectives within a complex financial domain. Adept at leading the architecture of large, integrated enterprise-level projects with multiple integration points and associated stakeholder groups.

- Extensive front office experience working directly with business stakeholders to design, develop and support front to back analytical, portfolio management and trade execution systems.
- Knowledge of financial products, quantitative strategies and statistical analysis applied to alpha generation, asset management and trading strategies across multiple asset classes.
- Technical project management with hands-on experience leading all stages of the full development lifecycle in a Scrum/ Kanban environment. Requirements gathering and gap analysis.
- Experience in the delivery of analytical, portfolio management and trade execution systems.
- Data integration and modelling. Strong relational DB experience.
- Data Analysis. Financial Modelling. Research Automation.

TECHNICAL EXPERTISE

- *Full stack Java Development*
- *Spring, Spring MVC, JPA, Hibernate*
- *Microservices (Spring Boot)*
- *Multithreading, Computation Finance*
- *ETL processing*
- *Sybase, Oracle, MySQL*
- *SOAP and RESTful*
- *Messaging (Tibco, RabbitMQ, Apache MQ)*
- *Rules Management System (Drools)*
- *HTML, JavaScript, JQuery, AngularJS*
- *Shell scripting, Perl, Python*
- *Data Analysis in Python and Excel*

PROFESSIONAL EXPERIENCE

Provenance Technology **May 2018 - Present**

Lead Developer *Hedge Fund start-up*

Design and development end-to-end research and portfolio management systematic trading solution that implements machine learning algorithms of fund flows in the financial markets.

- Owning and delivering the data integration to cover machine-learning requirements for signals generation process. Market data integration (Bloomberg Data Service) and introduction of securities master database to hold securities static data, equity prices, beta and index constituencies for historical and EOD prices.
- Leading backtesting tools development and introduction of hedging strategies into portfolio management and trading process. Working to facilitate front-to-back trading of listed securities maintaining in-house portfolio management platform integrated with Interactive Broker API for orders execution.

Spring Boot, JPA, Google Cloud, Bitbucket, Docker, MySQL, React, Interactive Broker API

Libra Investment Services **April 2015 - May 2018**

Technical Lead, Senior Developer *Equities Quant Research*

Liaising closely with Quantitative Analysts and Sales Researchers to manage the design and development of the bespoke Alpha generation quantitative research and systematic investment platform.

Front-to-back proprietary models maintenance and development to generate stock indicators and indices aggregation. Working proactively to further evolve existing analytical and content applications to a consolidated service-oriented platform with a modern UI.

- Leading technology change programmes, including application and technical architecture review and simplification with a strong focus on leveraging open source solutions. Hands-on contribution to deliver a two-speed transformation project to replace legacy systems following API-first development approach. The initial rollout was a stock screening request process across indices, sectors or clients' portfolios based on proprietary investment styles and strategies. The backend was built on top of Spring Boot integrated with components in Python via RESTful API for signals analysis and backtesting. The front-

end development followed plugins-centric architecture offered by a Liferay portal ecosystem with an emphasis on data visualisation. Middleware system (RabbitMQ) was introduced for events processing and legacy components integration.

- Core applications and peripheral software tools development. Introduction of a straight-through signals distribution framework to facilitate orders automation for in-house Portfolio Management solution.
- Quantitative models, stocks selection and backtesting tools development. Data and Analytics integration.
- Leading the in-house developers promoting test-driven development culture.
- Project management and technical consultancy in various business initiatives.
- Research products digitalization. Front-end development for research publication, portfolio management and pre-trade analytics with charting components (Flash, Highcharts).
- A number of DevOps tools and processes have been introduced (Github, Jenkins CI, Flyway, Docker) to streamline the development and release lifecycle. Microservices architecture (API Gateway, Service Registry, Circuit Breaker, Configuration Server) employed to manage services in production with an aim to move towards cloud computing.

JAVA, multithreading, JPA, Spring Boot, JQuery, AngularJS, MariaDB, RabbitMQ, Drools, Liferay Portal, Excel, Python

BlackRock Investment Management

Aug 2012 – April 2015

Associate Developer

FI – Quant Portfolio Management Tools

Working on a set of asset management tools supporting model-based FI and Liability Driven Investment businesses.

- Portfolio construction, order modelling and allocation on the Aladdin framework. (Java Spring, Swing, proprietary messaging system).
- PL & Attribution data integration project for the purpose of time-series analysis and reporting (Star schema, proprietary messaging system, Spring Batch ETL, multithreading)

A regional winner in a "Hackathon" competition with a proposed real-time alpha generation computational platform (Apache Storm, NodeJS, Socket.IO, D3 visualization).

iShares ETF

Primarily, the work was done on the web-based distributed order management platform - capturing and processing primary market, ETF orders from 3rd-party market makers. Participated in developing pre-trade analytics platform that allows "custom in-kind basket" to screen a list of securities to feed into proprietary portfolio optimization engine based on a set of constraints for building an optimized investable universe

- Served as a team member successfully implemented a number of initiatives for order processing improvements.
- Delivered API service to process proprietary portfolio optimization engine requests served to find the most optimal portfolio allocation for a given list of securities.
- Designed and developed workflow rules based reporting solution to present iShares Funds performance (JBoss Drools rules engine, BIRT libraries). Gained an experience in offshoring agile development coordination and items prioritization.
- Web UI development
- Other development as requested by the project owner to enhance the platform. Capital Markets and Portfolio Management support to resolve production issues.

Core JAVA, multithreading, Hibernate, Spring framework, Elasticsearch, Cassandra, Sybase 15; JBoss and Tomcat servers

Cantor Fitzgerald

Aug 2011 – Aug 2012

JAVA Developer

CFD Desk

CFD Trading Platform development and support. Responsible for Reuters real-time pricing quotes delivery across all traded asset classes in a mixed technological environment (JAVA, C++, Excel); external connectivity for institutional clients and liquidity providers (Cameron FIX engine). Working with the desk to resolve Trading Platforms and Pricing issues.

- Designed and developed integration between a 3-rd party CFD Trading platform and in-house BackOffice system via web services for settlement prices updates, accounts creation, new cash posting and margin movements.
- Facilitated shorting strategies to provide allocation connection with prime brokers.
- Working in a small team participated in rolling out a new corporate website.

JAVA, Hibernate, Spring JAVA, Sybase, JBoss and Tomcat servers, Apache Qpid

UBS**Oct 2010 – Jul 2011*****JAVA Developer******Exchange Traded Derivatives***

Prime Services web-based reporting system development and support for the purpose of position, risk, and P&L based on Agile Scrum methodology.

- Sprint work for system enhancements and bugs fix. (Star Schema).
- Web UI development
- Working in a team delivered assigned tasks to roll out a distributed reports generation platform.

Java, Spring MVC, Oracle 10g, Tibco

Citigroup**Sept 2009 – Oct 2010*****JAVA Developer******Credit Risk Technology***

Credit Risk Engine backend maintenance and development on Unix platform to compute Credit Risk exposures (Pre -Settlement, Exposure at Default) and Collateral Management. Batches and feeds processing, reports generation.

- Working in a global team participated in a transformational project to migrate Maximum Likely Increase in Value (MLIV) from Sybase batch processing to JAVA.
- Batch processing enhancements related to Basel II FDIC implementation.
- Sybase database development and performance tuning.

Core Java, Spring, Sybase, Perl, Korn Shell

Bank of America**May 2008 – Aug 2009*****Analyst (Graduate Analyst)******Rotational Graduate Program***

Java, Sybase, Perl

Barclays Capital**Mar 2008 – May 2008*****Analyst (Off-cycle internship)******Exchange Traded Funds***

Reports generation for ETF desk. SQL/Server Reporting Services.

Bank of Tokyo Mitsubishi**May 2007 – Mar 2009*****Interim Contract******Treasury***

Working in a team of consultants developed a workflow-based solution to facilitate Securities processing in Treasury department.

Python, Oracle

EDUCATION**CITY UNIVERSITY LONDON**

MSc Computer Science

London, UK 2006 -2007

Focus: Programming concepts; JAVA; C++; Advance Databases; Systems Analysis and Design; Software Agents (Monte-Carlo simulation); Open Source Systems.

GPA: **69.2%**

AARHUS TECHNICAL COLLEGE

HND IT and Electronics

Aarhus, Denmark 2004-2006

Focus: Electronics; Network Planning and Management (Microsoft, Unix platforms), Databases

GPA: **71.1%** Awarded merit scholarship – towards full tuition fees;

REFERENCES

Available upon request