Dr Peter Lappo
Lead Developer

BSc, MSc, PhD

January 2025

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Profile

Peter was tech lead at Credit Agricole building a transaction reporting regulatory data framework to allow the bank to report trades and provide data for compliance for MIFID, SFTR, CFTC and EMIR regulations.

He has also worked at HSCB building a big data / high available platform for Sales IT and trade capture and at Barclays building a graph based platform for capturing and visualising customer relationships. Other institutions include, Man AHL, JP Morgan and UBS.

Peter has worked on 10 different trading systems including three he designed and built from scratch one of which in a startup. These were high performance low-latency systems trading in equites, swaps, FX and fixed income on both the buy side and sell side.

Devops and containers are an important of his practice as are agile methods, especially Kanban, In the past he has presented papers at agile conferences.

Peter has an MSc in Banking and Finance (ISIB) from Reading University.

Peter is often reading about the latest developments in technology and is currently studying the maths used by machine learning.

Open source examples of his work can be seen here
https://github.com/systematicmethods/orderbook Golang OrderBook
https://github.com/systematicmethods/dask-sql Python (JDBC Driver)
https://github.com/smr-co-uk/java-logonce Java

Primary Skills

Java / Kotlin	SQL / NoSQL	Devops	Python
BDD	Server Side Dev	Database Design	Docker

Secondary Skills

Dask	Kafka	Angular / React	Mongo
Mobile Apps	Elastic Search	Cassandra	R
Storm	Flink	Kafka	Spring
Golang	Graph Databases	UNIX	Scala

Capabilities

Architectural Design	Project Management	Business and Data Analysis	Software Development

Attitude

Continuos Learning	Pragmatic	Self Starter	Analytical

Domain Experience

Low Latency Trading	Fixed Income / Equities	Data Streaming	Risk Management

Work Experience

Sept 2024 – now
Contract

Technology Specialist
Insight, Bank of America

Skills

Oracle, Python

Peter's role is to help build out the next generation of regulatory reporting engines using a high level DAG with business rules defining the transformation, enrichment and validation of messages flowing through the framework.

June 2018 – July 2024
Contract

Technology Specialist
Data Framework, Credit Agricole, London

Skills

Java, Kotlin, REST Microservices, Elasticsearch, Kafka, Spring, Postgresql, SQLServer, BDD, DevOps, Docker, Linux, Docker Swarm, SQL, Hadoop HDFS, Angular, Javascript, Vyne, Python, Dask, Mongo

Peter's role is multifaceted covering architecture, planning, development, devops and mentoring.

This project is a complex system taking trades, orders, and RFQs from a variety of trading systems in the bank before normalising and enriching the data with reference data, such as client data, sourced from external systems. The system is used for pre and post trade compliance, regulatory reporting, analytics and trade surveillance. It makes heavy use of SQL databases, Elastic Search and No SQL databases like Mongo.

The tech stack is Spring based micro-services and Storm ETL pipelines with Python Dask and Dask-SQL services being a recent addition. Peter has been involved in all aspects of the project using Java, Kotlin, SQL and Python inside Docker containers.

Nov 2016 – May 2018
Contract

Big Data Technology Specialist
Sales IT, HSBC, London

Skills

Java 8, Flink, Elasticsearch, HDFS, Kafka, Zookeeper, Cassandra, Kibana, Grafana, Influx DB, Telegraf, StatsD, Ansible, Spring, Postgresql, BDD, DevOps, Monitoring

The project aim was to replace an existing management information system that takes trading revenues and builds relationships to sales people taking the system to another level by integrating with CRM, price and risk systems in a very flexible manner. The project had a heavy DevOps tools and culture to fully automate code deployment to Dev, UAT and finally Production allowing the team to focus on building functionality.

Oct 2015 – Nov 2016
Contract

Lead Engineer
Treasury / DSI, Barclays, London

Skills

Scala, Java, Avro, Parquet, OrientDB, Akka-Http, AngularJS, NiFi, Gremlin, Elasticsearch, Kibana, Spark, Hadoop, HDFS

Peter was the Lead Engineer on two projects at Barclays. Both projects made heavy use of open source technology and code changes were provided to open source projects.

The treasury project was a largish project (25+ people) sourcing data from a variety of sources in the bank, transforming and running stress tests on the banks portfolio.

The customer releationships team consisted of 15+ people and off shore. Peter's role was the architect / design authority which in addition to design and coding involved planning and managing other members of the team, especially the offshore team

Mar 2014 – August 2015 **Contract**	**Chief Technical Architect** **Peer Dealer, FX trading Start-Up, London**
Skills	*Scala, Java, Cassandra, Scrum, Play Framework, Javascript, HTML5, CSS3, Boostrap, Akka, FX, Spark, BDD/TDD, Cucumber, Kanban, AngularJS*

Peer Dealer was a peer-to-peer FX trading start-up that allows users to trade with each other at potentially zero spread. Peter's role at Peer Dealer was multi-faceted, consisting of hiring developers, managing the project, developing code, designing a scalable architecture, developing the business model, and of course writing automated tests.

Jan 2013 - Oct 2015 **Part Time 2-3 hours per week**	**Chief Technical Officer (CTO)** **Pollard Et Filles, London / Guyana**
Skills	*Remote Team Management with Trello, MySQL, Javascript, Python, git, Scrum, Equity and FX Prices, Risk Management, Ansible*

Peter is the CTO at a frontier market investment fund that uses quantitative methods to trade in the Caribbean and South American markets. The fund uses local Guyanese staff to provide valuable quality local jobs.

July 2011 – Dec 2013 **Contract**	**Senior Algorithm Developer** **RBS M&IB, London**
Skills	*Java, Spring, FX, Forwards, Swaps, Crosses, Oracle, Scrum, R, Python, TDD*

Peter was helping RBS enhance and stabilise a business critical low latency FX spot and forwards pricing platform serving down stream ecommerce clients 24x5 with real-time rates, fixing and closing rates in three centres across the globe.

The server platform is written in core Java with an Oracle database, while the performance framework used Java, R and Python to produce performance graphs.

July 2011 – Jan 2012 **Part Time**	**Mobile App Consultant: Geogreenweb, London**
Skills	*Objective C, Git, iOS iPhone, jquery mobile*

This was a part time project developing a native Objective C location based iPhone app that wakes you up when you arrive at your destination.

Jun 2008 - July 2011 **Permanent**	**Senior Algorithm Developer** **Man Investments, London**
Skills	*Java, Spring, Maven, Algorithmic Trading, Linux, Python, R, One Tick, FIX Protocol, FX, Futures, Quickfixj, Subversion, Oracle*

At AHL Man Investments Peter was involved with several projects. Including:

Lead engineer on the implementation of a tick database using One Tick for research and trading:

Lead technology engineer on a high frequency low latency trading platform using servers collocated in Chicago and written in Java achieving sub-millisecond tick to trade performance.

Design of a FX streaming trading platform using a similar technology stack to the high frequency platform. This system has a positive impact on slippage for the main AHL trend following system by avoiding the market impact of RFQs. The first phase of this system went live early in 2011 ahead of schedule.

Aug 2007 - Jun 2008 **Permanent**	**Principal European Algorithm Developer** **Bear Stearns, London**
Skills	*Java, FIX, Algorithmic Trading, Unix, Ant, TTConnect, JUnit, Sell Side*

Peter was responsible for developing and supporting the entire sell side algorithmic trading system for European equity exchanges.

June 2005 - Aug 2007 **Contract**	**Project Manager / Team Leader / Analyst Developer: JPMorgan, London**
Skills	*Java, C++, JUnit, JDBC, Swing, Ant, Sockets, Sybase, Agile Development, Unix, ION Market View Web Services, Bloomberg Server API*

Mar 2003 - Apr 2005 **Contract**	**Analyst Developer** **UBS, London**
Nov 2002-Feb 2003 **Contract**	**Analyst Developer / Project Manager** **Dresdner Kleinwort Wasserstein, London**
Jul 2002-Nov 2002	**Analyst Developer / Project Manager (Consultant): APS Berk, Eastbourne**
May 2000-Oct 2002	**Java and Database (Contract): Barclays, Reigate: Web based invoice factoring system**
Feb 2000-May 2000	**Chief Technical Officer (Contract): Manage.com, London : Network management tools for ecommerce**
Oct 1997-Feb 2000	**Team Leader / C++ Java Analyst Designer (Contract): Nomura International, London**
May 1997-Oct 1997	**C++ Analyst Designer (Contract): Computer Share, London**
Dec 1996-Apr 1997	**C++ Analyst Designer (Contract): GPT, Nottingham: Network Management**
Aug 1996-Nov 1996	**Project Manager / Analyst Designer (Contract): Raima UK:** *4GL/database*
Dec 1995-Jul 1996	**Project Manager / Analyst Designer (Contract): BT: Text to Speech**
Jun 1992-Nov 1995	**Project Manager / Analyst Designer (Contract): GPT, Nottingham: Network Management**

Feb 1992-May 1992	**Project Manager / Analyst Designer (Contract): Singer Link Miles Ltd, West Sussex : Simulation**
Aug 1990-Feb 1992	**European Technical Manager (Contract): ALC, Bergen, Norway : Naval Systems**
Mar 1983-Aug 1990	**Software Engineering Group Leader (Permanent): Singer Link-Miles, West Sussex : Simulation**

Education / Qualifications

Finance ISIB MSc (Distinction) Reading University	PhD, Computer Optimisation, Leeds University
B.Sc (Hons 2.1) Food Science: Leeds University	3 A-levels, Physics with Maths, Biology, Chemistry, 11 O-levels

Professional

Member of the British Computing Society (MBCS)	Member of the Professional Contractor's Group
BCS Sussex Branch Chair 2004-2008	Chartered IT Professional (CITP)

Hobbies

Singing / Music / Painting	Cycling