#### **Paulo Mouat Lopes**

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# Profile

- Talented and motivated hands-on software architect, engineer and manager with broad experience in all
  activities around software development in the enterprise, particularly the creative aspects of analysis, design
  and implementation. Problem solver. Highly committed to delivery and quality of the product using iterative,
  agile and customer-centric processes and techniques.
- Consistently appraised a top performer and one of the best developers in the groups belonged to in all performance reviews.

# Employment

#### LiquidX (Boston, MA), 09/2018-ongoing, Principal Architect and Developer

#### Project: LiquidX 360 Cloud Platform (Azure stack, C#, .NET, SQL Server).

- Architected, designed and led technical development of the next-generation trade finance marketplace
  platform (the "LiquidX 360 Platform") to easily and seamlessly accommodate disparate asset classes, unifying
  accounts receivable, supply chain trade finance, trade insurance and other future aspects of the trade finance
  space into the first global, cohesive, integrated and "electronified" view of traded assets. The design allows
  LiquidX to run and operate its own marketplace but also gives partners the option to run their own separate,
  private marketplaces open only to their close circle of commercial relationships and networks of customers.
- Led technical development of the first next-gen product in the 360 Platform supporting the first foray of the company into the supply chain trade finance space. The project was delivered in 8 months, from conception, to prototype, to first live customer trade with a team of 5 developers.
- Architected, designed and led technical development of a robust trade settlement system that backs the LiquidX and partner trade finance marketplaces running in the 360 Platform, managing and mediating all cash application and movement. This system receives all marketplace trades in (near) real time and presents a complete picture of ongoing trades, enabling settlement workflows and formal progression of the trade lifecycle, including funding and payment transactions, fee and discount computation and application, and ultimately any bank orders to receive, transfer and move cash with the utmost security. This system also produces all data used for LiquidX historical reporting of trades and financial transactions. This project was delivered in 4 months, from design to first live trade settlement processing, with a team of 6 developers.
- Architected and designed a comprehensive and flexible permissions and entitlements system that manages identity and permissions across the entire suite of current and future products running on the 360 Platform in very rich and fine-grained detail. This system interfaces with Salesforce as the customer master and where the legal onboarding of customers takes place, presents the administrator with a full view of the customer companies and users to assign individual or group permissions, and mediates interaction with any chosen identity provider to enable user authentication into the marketplace products. The system also includes an authorization enforcement module that can be easily integrated into the middle-tier services and client applications to ensure authorization checks and verification are seamless and efficient.
- To date, the 360 Platform marketplace has traded more than \$2.5B in assets and is used by hundreds of users from hundreds of companies.

## Genscape (Boston, MA), 01/2013-05/2018, Principal Architect

#### Project: Cloud Platform (Azure, C#, SQL Server).

- Architected and designed a comprehensive technology platform for the next generation of products fully leveraging the cloud. Implemented a large part of the foundation libraries and services of the platform to integrate and abstract away key cloud capabilities in a consistent fashion, also facilitating seamless integration of legacy systems.
- Architected, designed and implemented a generic, modular, distributed user permissions system in the cloud, replacing various disparate on-prem legacy systems, making sure the entire range of current and future products and components was covered through easy extensibility.
- Established a technology stack, toolset and best practices to migrate the technology organization to a cloudfirst agile pipeline and adopt the new platform. Evangelized and mentored in-house development teams.
- The platform now underpins the next generation of the company's flagship real-time product. Implemented the majority of the middle-tier services supporting it.

#### Project: Global Data Pump (C#, Azure, WPF, SQL Server).

 Architected, designed and led implementation of a modular, extensible, and fully automated content scraping system, to replace the aging PHP-based system that performed those duties. It is comprised of various independent scalable micro-services and a client application enabling non-technical users to create and maintain scrapers with a point-and-click workflow with zero coding, while allowing collection and processing of documents in arbitrary formats delivered through arbitrary means.

## Thomson Reuters (Boston, MA and Hong Kong), 08/2008-06/2012, Solutions Architect

#### Project: Lynx (C#, WPF, WCF, SQL Server 2008).

- Architected, designed and implemented the smart client framework for the next-generation content production system, replacing the legacy system in use at Reuters by 3000 journalists worldwide to create all text news stories. It consisted of a smart client desktop application and middle-tier services distributed globally in 6 data centers.
- Led the delivery of a strategic product to curate aggregation of news assets (text, pictures, videos, links, and others) into a cohesive and publishable unit. It replaced disparate tools and was critical to maintaining the reputation of the company as a provider of quality, accurate and timely news to an audience of millions of users. Managed a globally distributed team of 8 developers and QA engineers, and coordinated the delivery and deployment of the product with the business, operations, support and user-base teams.

#### Project: News Planner (C#, ASP.NET, WCF, Oracle).

 Managed the architecture, design and development of a web-based tool for the global team of journalists and editors to plan, manage and organize coverage activities of news events. Managed a globally distributed team of 5 developers and coordinated activities with 2 business analysts. Successfully delivered the product in 5 months of development time.

## Tradeweb (Jersey City, NJ), 07/2006-08/2008, Vice President Software Development

#### Project: EMS (C#, WinForms, GDI+, networking, SQL Server 2005, FIX).

• Tech lead in the architecture, design and development of an execution management system, a real-time broker-neutral equity trading application consisting of a smart client desktop application and a number of server-side distributed services. Managed the delivery of the full product in 9 months with 3 other developers

and 2 business analysts, to accommodate the deadlines of a large buy-side customer. Added complete sellside functionality in a further 3 months of development.

# Thomson Financial (London, UK and New York, NY), 09/2000-06/2006, Senior Software Architect, Senior Software Engineer

#### Project: Various (All .NET, web, data and service technologies).

- Member of the team that designed and implemented the Thomson Reference Architecture SDK, a .NET client, server and SOA extensible foundation framework implementing the internal reference architecture and the basis of all software components, web services and applications developed in the company, promoting best practices, consistent implementation and formalizing shared core and central services through a set of integrated APIs.
- Managed architectural planning and software design, ensuring consistency, best practices and enterprisequality components on several projects across various technology groups, contributing to development project estimates and releases.
- Managed technical development of several projects in C# and ASP.NET, always in close relationship with customers, ensuring tight delivery schedules and high quality.

#### Project: Thomson Deals (Java, EJB, Servlets, JSP, XML, XSLT, Oracle).

- Designed and implemented a Java servlet-based architecture and platform to allow easy implementation of componentized web products. This platform would later become the Thomson Deals product, a web-based investment banking application that exposes the vast collection of deals data across the mergers, bonds, equities, loans and project finance asset classes.
- Designed a versatile and generic multithreaded task management and scheduling system to perform data collection from the company's trove of data repositories in a data-source-agnostic way, to be used in current and future web products.
- Designed and implemented a Javascript architecture to minimize server roundtrips to improving user experience and responsiveness.

## Various (Lisbon, Portugal), 10/1998-08/2000, Senior Engineer, Team Lead

#### Project: Various (Visual Basic, Win32 APIs, COM, PHP, MySQL).

- Headed a team of 4 at Markdata for the implementation and delivery of the next-generation web-based television audience analysis software, using core components developed in C++ and ATL, server-side scripting in VBScript and ASP and client-side scripting in Javascript. Developer of the C++ proprietary component model and API underlying the audience analysis software, allowing for cross-platform development in Windows and Linux using Visual C++, Visual Basic, Java and CORBA. Heavy client facing role, working with international customers.
- Designed and implemented several high-visibility projects at ADGM Infografismo, including the official software application for the portuguese driving schools and a browsing application for census data for the portuguese National Statistics Institute, winner of the institutional grant for the project. Trained and led various teams of 2-4 developers and 2-4 designers to adequately tackle and win a number of high-profile projects the company had in the pipeline.

## Various (Lisbon, Portugal), 1993-1998, Consultant

• Developed and collaborated on several solutions in C++ and Visual Basic for a variety of clients.

# **Technical Skills**

#### **Project and Technical leading**

- Excellent hands-on experience in managing large-scale and time- and cost-critical projects. Completed an end-to-end prototype of the next-gen platform at Genscape in 3 months. Led team of 4 at Tradeweb to develop an EMS from the ground-up in 9 months. Tech lead at Thomson Financial of hands-on architecture team responsible for the reference implementation of a company-wide solution architecture.
- Engages with teams throughout the company to provide architecture, technical direction and coordination in critical projects. Conducts cross-team architecture, design, code review and guidance activities. Proactively ensures business analysts produce accurate, thorough and properly prioritized requirements and user stories through functional specification reviews to guarantee quality of product, that business requirements are met and the successful timely completion of deliverables. Provides weekly status and recommended action plans to senior management.
- Excellent hands-on experience in heavy customer facing roles. At Thomson Financial successfully led and managed technical development of the Independent Research solution developed for CSFB in collaboration with the customer and within very tight regulatory deadlines. Developed the next generation of media analysis software at Markdata, greeted with great customer satisfaction in the over 10 countries the product was presented owing its success to the heavy customer dialogue and feedback.
- Mentored junior team members in object-oriented design and technique. Mentored fellow architects in design approaches and patterns for the cloud.

#### **Software Development**

- C# and .NET: Excellent hands-on, full-stack experience of 16 years with extensive work across front-end, middle-tier, database and cloud technologies.
- Java: Excellent hands-on experience of 3 years with extensive work in Java Servlets, JSP and J2EE.
- C++: Excellent hands-on experience of 6 years, using Borland C++ and Visual C++.
- SQL: Hands-on experience in MS SQL Server and Oracle.
- Agile: Practitioner of various flavors of agile methodologies (Scrum, XD, TDD) for 15 years.

# Education

#### 1990-1994: University of Lisbon, Lisbon, Portugal

Theoretical Physics (incomplete).

## Languages

English: Fluently spoken and written. French: Fluently spoken and written. Portuguese: Mother tongue.

# **Other interests**

Music composition, Mathematics, Physics, Philosophy.