# Vanni Torelli

+44 20 8133 6907 vanni.torelli@gmail.com

Software architect, developer, and project manager with more than 20 years of experience in financial services, automation, and telecommunications.

Specialised in high-performance, low-latency distributed systems in .NET and Java.

# Language Stacks

.NET/C# Java Python **TypeScript** Dart Excel VBA



## Cloud and containerization

Docker

AWS Kubernetes Google

## **Databases and datastores**

PostgreSQL Redis

**TimescaleDB** Couchbase

MongoDB Memcached

### Middleware and communications

RabbitMQ Aeron TCP/IP

Kafka ZeroM0 UDP

Solace Nanomsq **PGM** 

### Mobile frameworks

React Native Flutter

# Web frameworks

ASP.NET Core

React

Conduit (Dart)

August 2021 Date

## Senior Developer Nahmii AS



Full engineering of analytics and trading automation tools, both off-chain and on their Nahmii 2.0 Ethereum Layer 2 platform. .NET Core C#, Nethereum, W3 data sources, TimescaleDB, Python, Grafana.

January 2015 June 2021

# Technical Lead, Consultant

Stream Financial Ltd, UK

**Stream**Financial

Full engineering of DataFusion (DF), a data virtualization platform capable of query-based analytics and processing over large, heterogeneous, and distributed data sources. .NET Core C#, Java, Python.

Full engineering of a Custodian platform for crypto/fiat currency transactions, with rule-based flow processing and support for multiple exchanges. Successfully rolled out with Bitfinex in 2019.

June 2015 Present

**a**gluon

### **Director, Principal Consultant**

Gluon Consulting Pte Ltd, Singapore

Gluon is a brand I created to provide specialised IT services to enterprise Clients. Projects I worked on, as sole or main developer:

## Panasonic (US/Japan), 6 months

Prototype of *Moments*, a context-aware contents delivery platform. Context detection engine based on smartphone sensor fusion and offline data analytics. Dart, Python.

## Numen Capital (UK), 9 months

Numen is a London-based multi-strategy hedge fund. Full engineering of their market and sentiment data aggregation and trade analytics engine. .NET Core C#, Python.

### MoneyFarm (UK), 6 months

MoneyFarm is a large digital wealth manager. Full engineering of a portfolio management and pre-trade analytics dashboard. .NET Core C#, Python.

September 2020 October 2021

## Co-founder, interim CTO

Etna Research Ltd



Etna Research is a new alpha-as-a-service platform for institutional investors. As interim CTO, I am responsible for the development and evolution of Etna's MVP across R&D, alpha generation, and reporting.

Full engineering of the market data aggregation and feature calculation pipeline in high-performance .NET Core C#. Quant library wrappers and clients in Python.

January 2014 December 2014

GAM

# Front-office Developer, Consultant

**GAM Holding AG** 

Contributed to their portfolio management and trading applications and responsible for enhancing their server-side and client-side technology infrastructure. .NET C#, WPF.

July 2013 December 2013

## Front-office Developer, Consultant

Credit Suisse Group AG

Responsible for improving and maintaining Pyro, an in-house distributed keyvalue store that cached risk calculation data. .NET C#.

CREDIT SUISSE

#### June 2012 Front-office Developer, Consultant June 2013

Barclays Capital Plc

Working with Barclays Fund & Advisory team. Full engineering of Feeds Gateway, an event-driven workflow engine used on BFA's post-trade processing flow. .NET C#.

BARCLAYS

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January 2011 March 2012



# Quantitative Developer, Technical Lead

BlueCrest Capital Management LLP

Technical lead for the firm's internal Volatility Arbitrage fund, trading FX and Equity Index options. Coordinated a team of 3 senior developers and liaised with traders and quantitative analysts.

Development and support of *Mariana 8*, the firm's main FX risk, analytics, and execution support platform, which served Vol Arb as well as 50 users across trading, risk, product control, and middle office. .NET/C#, WPF, Excel VBA.

November 2009 December 2010 Front-office Developer, Consultant

**BNP** Paribas Plc



Full engineering of the bank's core FX spot price discovery and aggregation front-end: product selector, price and position tiles, liquidity aggregation rule editor, trade blotter, configuration and administration sections. .NET/C#, WPF.

March 2006 November 2009

### **Quantitative Developer, Technical Lead**

BGC Partners Inc



Full engineering lifecycle of Columbus, a platform that integrated live market and pre-trade analytics data and distributed them over a rich web client. Live feeds included Bloomberg, Reuters and internal Excel models. Quantitative models implemented included GBP and CHF IRS and FX forwards for the 14 major currency pairs.

Coordinated a team of 4 developers and 2 business analysts and quantitative developers. .NET/C#, WPF.

October 2001 February 2006

Earlier professional experience is available on request.

# Academic experience

# BEng Hons (1st) Telecommunications Engineering

Department of Electronic Engineering, King's College London, UK

Syllabus included: communication networks, digital signal processing, computer engineering, real-time systems, microprocessors, operational research, project management.

Individual Project: Synthesis of Resonant Pipes with the Digital Waveguide Algorithm, supervised by Professor Mark Sandler. Project was awarded a national IEEE prize.