Contact

www.linkedin.com/in/samizadeh (LinkedIn)
braincatcher.io/ (Other)
youtube.com/@dr.samizadeh (Portfolio)

Top Skills

Algorithmic Trading
Seasonality
Time Series Analysis

Languages

English (Full Professional)
Persian (Native or Bilingual)

Certifications

Essential Cloud Infrastructure: Core Services - GCP
Elastic Cloud Infrastructure: Containers and Services - GCP
Hadoop Platform and Application Framework
Teneo 5.0 Deep Dive
Essential Cloud Infrastructure: Foundation - GCP

Honors-Awards

Prize winner of PayPal CharityHack 2009
Prize winner of Google 2008 developer in Social Application Development
Prize winner of the sixth Kharazmi Student Festival of Science and Technology 1993

Publications

Performance Optimization in Video Transmission over ZigBee using Particle Swarm Optimization
Adaptive Scalable Rate Control over IEEE 802.15.4 using Particle Swarm Optimization

Dr. Imán Samizadeh, Ph.D.

PhD in AI | Quant & FinTech Innovator | Front Office | ESG | Market Risk | Algorithmic Trading | Solution Architect | Blockchain & Web3 | LLM/LLaMA | Java & Python | Cloud & Cybersecurity | Kappa Architecture Evangelist

London Area, United Kingdom

Summary

Free mind, free soul Architect. I drive forward thinking initiatives in AI, FinTech, and blockchain. With 25 years in technology, I specialise in front-office systems and the end-to-end trade life cycle, applying AI governance, cloud transformations, enterprise architecture, and digital platforms in financial services. My experience spans Spot FX, Fixed Income (bond pricing), Equities, Credit, Asset Management, Derivative, Risk, XVA, ESG, and FinTech.

Armed with a PhD in Computational Intelligence (AI), I bring deep technical insight combined with front-office banking expertise. I pioneered Kappa Architecture for big data, which has been referenced widely, and I hold two patents.

My software development background covers C++, Java, Python, C#, and Rust. I've led significant tech initiatives, applying frameworks like TOGAF, Zachman, SAFe, Scrum, and Kanban, and I'm a Certified ScrumMaster.

I've built and delivered large-scale solutions, from distributed pre- and post-trade platforms to decentralised e-trading systems and asset-agnostic exotic exchanges. My projects often involve pre-trade analytics, XVA Quant, and risk exposure modelling. I've also developed quantitative models for XVA trading and broader risk modelling, integrating them into platforms such as OpenLink, Murex, Orchestrade, and Quantifi. In addition, I've implemented volatility surface models, pairs trading strategies (especially for ETFs), and risk metrics like VaR, CVaR, and Monte Carlo simulations.

I incorporate advanced derivative modelling for US options, leveraging full Greeks (Delta, Gamma, Theta, Vega) and applied

Particle Swarm Optimisation Applications to Mpeg-4 Transmission Over ZigBee

Bitcoin Price Prediction and Analysis by Simulating Consistent Growth Near All-Time High

Auxiliary Reviewer for International Conference on Fuzzy Computation Theory and Applications (Computational Intelligence)

Patents

Combi data transceiver via visual, optical, auditory and IoT networks using smart devices

Utilising brain waves and activity known as electroencephalogram (EEG) in corporation with applications of artificial intelligence (A.I) to produce generative arts and create non fungible token (NFT) on blockchains

Aggregate system and method for selection and filtering of multiple vehicle offers based on location and ranked values

mathematics to inform pricing, strike predictions, and real-time market stress testing. My expertise further extends to market sentiment analysis, data clustering, and time series forecasting using seasonality, Sharpe Ratio, SARIMAX, and ARIMA. By merging quantitative solutions with regulatory requirements (DORA, MAR, MAD, MiFID), I deliver scalable, resilient outcomes.

Beyond finance, I’ve spent over a decade in AI, covering NLP, neural networks, reinforcement learning, and GenAI. My projects include Change Data Capture (CDC), Complex Event Processing (CEP) for electronic trading, and training AI with HITL and MLOps.

Experience

Mitsui Bussan Commodities Ltd
Commodity Trading Solution Architect (Associate with Tonic)
September 2024 - December 2024 (4 months)
London Area, United Kingdom

Worked as a Commodity Trading Solution Architect at Mitsui & Co. through Tonic Consultancy, specialising in designing and delivering tailored solutions for complex commodity trading environments - Data Lake / CTRM / ETRM.

Imperial College London
EIA
August 2023 - August 2024 (1 year 1 month)
London, England, United Kingdom

From leading initiatives in banking and FinTech to pioneering change at Imperial College London as enterprise architect. Drawing on my extensive experience as I step into this role, and looking forward to re-embracing academia. #NextChapter #imperial

VOX Tier
CTO
September 2022 - August 2023 (1 year)
London Area, United Kingdom

I was solely responsible for architecting and developing a full-stack polyglot for the quantitative self-service platform that
revolutionised financial decision-making. The platform, designed, employs state-of-the-art technologies in artificial intelligence

(AI), natural language processing (NLP), large language models (LLM), and low-level memory allocators. It provides
comprehensive market coverage to address financial data's high temporal sensitivity and low signal-to-noise ratio. This
complex architecture supports a multitude of services, including Generative Adversarial Networks (GANs) for learning volatility
surfaces and Long Range (LoRA) fine-tuning. In addition to AI and NLP capabilities, the platform is a robust tool for portfolio
managers, traders, and sales professionals, offering functionalities in portfolio optimisation, asset allocation, and diversification.
It features multi-modal market data of varying financial assets, exhaustive data preprocessing and a high-fidelity data-driven
market what-if simulator

LSEG (London Stock Exchange Group)
Fixed Income - Lead Solution Architect
September 2021 - September 2022 (1 year 1 month)
London, England, United Kingdom

Fixed Income - Bond Pricing, AI, NLP, ESG, Traded Content

UBS
Asset Managment - Lead Solution Architect
January 2019 - September 2021 (2 years 9 months)
London, England, United Kingdom

Asset Managment, Cloud, AI, NLP

GFT Group
Lead Solution Architect
July 2018 - January 2019 (7 months)
London, United Kingdom

HSBC Global Banking and Markets
FX - Solution Architect - Senior Lead Specialist
July 2016 - April 2018 (1 year 10 months)
London, United Kingdom

Cash FX, Synthetic Cash, Equity

Barclays
Capital Market - Senior Technical Lead
January 2016 - June 2016 (6 months)
London, United Kingdom

Capital Market

BBC
Senior Agile Java Software Engineer
August 2015 - January 2016 (6 months)
London, United Kingdom

Deutsche Bank
Senior Software Engineer
June 2011 - June 2015 (4 years 1 month)
London, United Kingdom

London Metropolitan University
Ph.D Candidate & Part-time lecturer
October 2006 - October 2012 (6 years 1 month)

Part-time lecturer and research student in Computational Intelligence which refers to evolutionary computation and the ability of a computer to learn a specific task from data or experimental observation. In high-level, the area of my study is nature-inspired to resolved some complex problems. Hence, I studied Neural Networks, Fuzzy Logic, Ant Colony/Genetic algorithms, Learning Theories (Machine Learning) as subfield of artificial intelligence. And my expertise is in Particle Swarm Optimisation.

Sky
Lead Agile Developer
September 2010 - May 2011 (9 months)
London, United Kingdom

Gamesys
Lead Software Engineer
July 2008 - 2010 (2 years)

Time Inc. UK
Agile Developer
February 2008 - June 2008 (5 months)
London, United Kingdom

Five by Five Global
Software Engineer
November 2006 - December 2006 (2 months)
Southampton

A short-term contract developed and integrated a payments system for the Island Cruises (First Choice)

Education

London Metropolitan University

Doctor of Philosophy (Ph.D.), Computational Intelligence · (2006 - 2012)

London Metropolitan University

Master's Degree, Computer Science · (2004 - 2006)

Tehran - The school of engineering

B.Eng., Electronic Engineering · (1996 - 2001)