

— Founder experience

25+ years engineering and architecting business- critical software

The judgment behind every ShamuWare engagement comes from decades of hands-on architecture work on systems where downtime and bad migrations have real consequences — not from a bench of subcontractors.

— Executive summary

Deep .NET and cloud roots, extended into applied AI

Shams Mukhtar brings more than 25 years of software-engineering and solution-architecture experience to every ShamuWare engagement, including business-critical delivery at Fidelity Investments, Latham & Watkins, Barclays Capital, JPMorgan Chase, and Credit Suisse. His background combines deep Azure and .NET architecture with

hands-on generative-AI and agentic engineering — LLM-enabled workflows, retrieval-augmented generation, multi-agent orchestration, and the Model Context Protocol — applied to real production systems, not slideware.

That combination is what ShamuWare's modernization and AI-enablement work draws on: architectural judgment shaped by decades on business-critical systems, translated into decisions an executive can act on. The person who reviews your architecture is the same person who has carried that kind of work end to end, repeatedly, across regulated and operationally demanding environments.

— Core areas of expertise

What that experience covers

GenAI & agentic architecture

Reference architectures for retrieval-augmented generation, agent orchestration, and LLM-enabled workflows, with grounding, evaluation, and human-approval checkpoints designed in.

RAG

LangChain & LangGraph

CrewAI

MCP

Responsible & regulated AI

Human oversight, least-privilege access, data lineage, and model/prompt versioning applied to AI systems operating under real governance and audit requirements.

Governance

Model-risk awareness

Auditability

Enterprise & cloud architecture

Secure APIs, event-driven microservices, and Azure-based integration patterns for systems that have to keep working under real operational load.

Azure

Microservices

OAuth2 & MSAL

Financial-services systems

Trading platforms, payments processing, market data, and risk-publication systems where correctness and reliability aren't optional.

SWIFT MT/MX

ISO 20022

Streaming market data

Engineering leadership

Architecture strategy, design reviews, vendor evaluation, and cross-functional leadership across product, UX, and engineering teams.

Architecture reviews

Agile & TDD

Mentoring

Platforms & development

Two and a half decades of hands-on delivery across desktop, web, and mobile stacks — not just architecture diagrams.

C# & .NET

.NET MAUI

Python & TypeScript

— Selected professional accomplishments

Representative work, grouped by discipline

Described as professional experience, not as ShamuWare client case studies — see [Representative Engagement Scenarios](#) for how ShamuWare frames consulting work.

Modernization & architecture

Re-architected a legacy Xamarin application into a modern .NET MAUI platform, and contributed to WPF and Blazor Hybrid solutions built on current .NET.

Defined reference architectures and led design reviews translating business, security, and governance requirements into practical engineering controls.

Cloud & distributed systems

Designed secure integrations using OAuth2/MSAL, Microsoft Graph, REST/gRPC, and Azure DevOps across enterprise workplace and payments platforms.

Built event-driven microservices spanning catalog, pricing, orders, payments, and inventory, with authentication and secrets management designed in from the start.

Mobile & cross-platform

Built offline-first iOS and .NET MAUI applications backed by SQLite, with background synchronization and conflict resolution for uninterrupted field operations.

Delivered cross-platform trading and clinical-instrument applications spanning iOS, macOS, Windows, and Android from a shared C#/.NET codebase.

Financial-platform systems

Led architecture and delivery of enterprise payments platforms using SWIFT MT/MX messaging and ISO 20022 standards — routing, validation, settlement, and reconciliation.

Engineered real-time market-data and streaming-pricing pipelines powering trading dashboards and risk-publication workflows.

AI & agentic engineering

Designed end-to-end GenAI reference architectures spanning governed data ingestion, retrieval-augmented generation, prompt/version management, and human-approval checkpoints.

Prototyped multi-agent workflows with LangChain, LangGraph, and CrewAI — with role-based tool access, structured outputs, and auditable execution records.

Technical leadership & mentoring

Led architecture from requirements and prototypes through implementation, testing, and release across cross-functional product, UX, and engineering teams.

Introduced Agile/Scrum, test-driven development, and code-review standards on teams led, raising delivery quality without slowing releases.

— Career timeline

25+ years, in outline

2025 – Present

Principal Software Engineer

Fidelity Investments (EY Contract) — Trader Pro

2024 – 2025

Lead Software Engineer / Consultant

NCR Voyix Corporation — Point-of-Sale Platform

2023 – 2024

Lead Solution Architect, Desktop/Mobile Development

Latham & Watkins — Enterprise Workplace Platforms

2019 – 2023

Lead Solution Architect / Lead Software Engineer

Oxford International / Terumo Hearts — Medical IoT

2018 – 2019

Lead Software Engineer / Lead Solution Architect

Randstad USA / MacroMediaGroup — Media & Advertising

2017 – 2018

Lead Solution Architect / Lead Software Engineer

Intel Corporation — Industrial IoT

2015 – 2016

Lead Software Engineer / Solution Architect

Barclays Capital — Payments, Market Data & Risk

2013 – 2015

Senior Consultant / Lead UX & Solution Architect

Siemens Health Diagnostics — Clinical Diagnostics

2012 – 2013

VP / Lead UI-UX Solution Architect

JPMorgan Chase — Custom Payments

2005 – 2012

Additional financial & technology experience — Lead/Senior Software Engineer

Credit Suisse, Verint Solutions, Agilent Technologies, 3E Company, Alaris Medical Systems

Education

Master's in Software Engineering,
University of the Punjab
Bachelor's in Chemical Engineering,
University of the Punjab

Recognition & writing

Prize-winning CodeProject author,
"Applying Robustness Analysis on the
Model–View–Controller (MVC)
Architecture in ASP.NET, Using UML," and
"An Extensible Master-Page Framework for
ASP.NET 1.1 Using Pattern-Oriented
Design." Writes on applied AI-assisted
engineering workflows at
shamsmukhtar.hashnode.dev
(<https://shamsmukhtar.hashnode.dev/>).

Connect on LinkedIn (<https://www.linkedin.com/in/shams-mukhtar-06545a6/>)

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