

# HASSAN SHUMAN

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## ENTERPRISE AI & TRANSFORMATION LEADER • AI PLATFORM ARCHITECT • CTO/CIO ADVISOR

Technology leader with 25+ years delivering enterprise transformation programmes across financial services, healthcare, and government, with a strong focus on cloud, data, and AI platforms. Over the past decade, increasingly focused on machine learning, private LLM deployments, and AI governance within regulated environments where data residency and operational risk are key constraints. Hands-on experience building production AI systems including RAG pipelines, vector-search workflows, and ensemble ML solutions using Python, Qdrant, PostgreSQL, and cloud-native services.

Worked closely with CIOs, CTOs, and enterprise architecture teams on AI adoption strategy, cloud modernization, and responsible AI governance. Played a key role in expanding the Infosys AI & Data practice across regulated industry clients

Strong commercial background with a 60% RFP/RFI win rate across £60M+ in competitive bids. Remain hands-on technically, building production AI platforms focused on cloud cost intelligence, quantitative trading signals, and critical discourse analysis.

### TECHNICAL SKILLS

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Cloud Platforms                  | AWS, Azure, GCP, Oracle Cloud                                                                                                      |
| Generative AI & AI Orchestration | LangChain, LangGraph, Amazon Bedrock, Azure OpenAI, RAG pipelines, prompt engineering, LLM guardrails, Ollama (private deployment) |
| Data & ML Operations             | SageMaker, Databricks, MLflow, PyTorch, Apache Airflow, Power BI, model fine-tuning, drift detection, walk-forward validation      |
| Vector & Graph Databases         | Qdrant, Pinecone, FAISS, Neo4j, data mesh architecture                                                                             |
| Data Platforms                   | Databricks, Snowflake, Aurora, DynamoDB, Cosmos DB, InfluxDB, data lakes                                                           |
| Container & IaC                  | Docker, Kubernetes, AKS, Fargate, ECS, Terraform                                                                                   |
| Programming                      | Python, C# / .NET Core, Rust, C++                                                                                                  |
| Scale                            | 25,000+ servers, 50,000+ applications managed across global estates                                                                |

### PRE-SALES & BUSINESS DEVELOPMENT

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|----------------------------------------------------------------------------------------------------------------------------------------|
| Generated £12M+ annual revenue through CTO/CIO relationships and "two-in-a-box" advisory model                                         |
| Won £60M+ in new business including £M+ data & AI deals across 25 clients   60% RFP/RFI win rate                                       |
| Built sales pipelines across financial services, healthcare, government, and manufacturing — as a technical advisor, not a salesperson |

### PROFESSIONAL EXPERIENCE

#### Infosys Consulting | Senior Principal Consultant — Data & AI Practice

Feb 2022 – Present

Led AI and data engagements across banking, insurance, healthcare, and manufacturing, managing cross-functional teams spanning architecture, engineering, and delivery. Partnered with CIOs and CTOs on AI adoption, cloud modernization, and large-scale transformations while scaling practice revenue to ~£12M annually. Delivered high-regulated enterprise programmes covering private LLM deployments, data platform modernization, FinOps, and mainframe migrations.

#### Enterprise Client Leadership & Strategic Advisory

Progressed from delivery leadership into strategic advisory roles, working directly with C-suite stakeholders on transformation planning, governance, and AI strategy while remaining deeply hands-on in architecture reviews and implementation decisions.

#### **NatWest Group | Strategic Advisor to Head of Commercial Banking**

- **AI Deployment:** Delivered a private RAG-based support assistant for Amazon Connect agents using Bedrock and internal knowledge bases, enabling natural language search during live calls and reducing average hold times by 35%.
- **Mainframe Migration:** Advised and designed the migration of the commercial banking system to AWS. Partnered with AWS Professional Services on governance, equivalence testing, change data capture (CDC), and migration planning.

#### **MS Amlin | Shadow CIO Partnership (Generated £6M revenue)**

- **Strategic Roadmap:** Collaborated with the CIO to define a three-year IT roadmap and cloud migration strategy, stepping in to rescue and stabilize a struggling account.
- **Data Modernization:** Built a unified data platform integrating 10 acquired companies into Cosmos DB and Databricks, enabling ML-driven risk modelling.
- **Estate Rationalization:** Deployed an application modernization accelerator that reduced the application estate by 25% and licensing costs by 15%.

#### **Bosch / JCI M&A | TSA & Post-Close CTO Advisor (Generated £4M revenue)**

- **Carve-out Architecture:** Acted as strategic technology advisor on a £100M+ HVAC IT carve-out spanning 760 applications across 111 locations. Designed a hybrid AWS/Azure "Merger Zone" transitional architecture.
- **Data Separation:** Established data separation strategies across enterprise ERP, CRM, and analytics platforms, building custom dependency-analysis tooling to support rapid rationalization.

#### **ASR Insurance (Holland) | Interim CTO Advisor**

- **FinOps Turnaround:** Rescued a stalled FinOps initiative, delivering live PowerBI Azure spend analysis and governance workflows (tagging compliance, idle resource detection, Terraform-based remediation).
- **Infrastructure Transformation:** Led a 4-consultant team assessing the full application landscape, recommending a 30% estate reduction that delivered a 60% cost reduction and established a new FinOps operating model.

#### **Danske Bank | Lead Architect**

- **Mainframe Modernization:** Migrated 5M+ lines of COBOL to AWS using BluAge, achieving full mainframe decommission and £40M+ in annual savings.
- **Digital Platform:** Designed a serverless-first credit card loyalty platform using Lambda, EKS, and DynamoDB. Managed 16 developers to replace 3-day batch cycles with real-time processing under a 99.9% SLA.

#### **AXA XL | FinOps & Rationalization Lead**

- Partnered with the CTO office to run an application landscape assessment, reducing estate costs by 40% through redundancy removal and cloud optimization.
- Deployed a FinOps cost intelligence agent that reduced cloud spend by 20% net of consulting fees.

#### **Solutions Architecture & Scaled Delivery Innovation**

Personally architected and built four reusable, AI-enabled enterprise transformation tools using Python, Qdrant, PostgreSQL, and cloud-native services. Developed within live engagements, these platforms were standardized as repeatable commercial offerings, generating £10M+ in practice revenue.

- **FinOps Cost Intelligence Agent (Generated £6M revenue across 12 clients)**
  - Automates cloud spend assessment, tagging governance, and Terraform remediation script generation via cloud billing APIs.
  - Compresses typical 12-week, 4-person discovery engagements down to a 4-week, 2-person fixed-price delivery. Personally led deployment at 5 clients before scaling it practice-wide.

- **M&A Integration Agent** (*Generated £2M revenue across 4 merger programmes*)
  - Derived from the £8.1B Bosch/JCI divestiture methodology to automate application dependency mapping and data separation analysis.
  - Reduced complex TSA exit and carve-out planning cycles from 16 weeks down to 6 weeks.
- **Application Rationalization Agent** (*Generated £1.5M revenue*)
  - Portfolio optimization tooling for post-merger estate consolidation that automates functionality duplication detection and cloud service consolidation mapping.

## IBM | Chief Architect

Sep 2018 – Jan 2022

Built and led IBM's enterprise AI and architecture competency centres across financial services, government, healthcare, and energy — hiring, developing, and directing teams of architects and data scientists. Generated £25M+ in client value through strategic pre-sales and hands-on delivery of Python-based ML and data platform solutions.

- **Lloyds Bank** : Architected ML-powered fraud detection platform processing 2M+ daily transactions in real time using Watson on IBM cloud. Designed unified data fabric combining structured and unstructured data enabling ensemble ML models achieving 40% fraud reduction. Implemented private NLP pipeline — all inference within Lloyds' regulated boundary, no data egress to external APIs.
- **GCHQ / Government**: Designed and deployed enterprise FinOps strategy and cost optimisation centre of excellence. Built automated cost intelligence dashboards using Python/boto3 with AWS Cost Explorer and tagging governance. Established FinOps as a core architectural standard across all solution designs. Designed classified data architecture to HMG security standards.
- **NHS Track and Trace**: Designed and built MVP Amazon Connect platform integrated with Salesforce CRM as part of competitive bid — won £20M contract. Built AI-assisted call routing and real-time transcription pipeline using Amazon Transcribe and Comprehend, processing 50,000+ daily interactions.
- **Deutsche Bank**: Led application portfolio rationalisation programme analysing 600 on-premise applications and reducing the estate to 400 through consolidation of duplicate functions, replacement of commodity tools with SaaS alternatives, and migration of applications with available source code to microservices on AKS running on AWS. Developed the business case and TCO analysis connecting application rationalisation directly to infrastructure cost savings and operational risk reduction. Built the pilot with a core architecture team to prove the approach, which was then used to win the full programme.
- **Shell**: Shaped a £3M cloud strategy engagement, building the roadmap for migration of 30+ legacy applications to cloud-native architecture on AWS. Developed the TCO model and multi-year investment case for Shell's technology leadership, covering platform, security, organisational change, and financial dimensions. Established cloud governance standards and an architecture review process to manage the transition — one of the earlier engagements where FinOps discipline became as important as the technical architecture itself.

## Accenture | Enterprise Architect

Aug 2014 – Mar 2018

Led enterprise technology competency development across telecoms, financial services, and retail. Influenced £100M+ strategic technology investments through pre-sales leadership.

- **RBS**: Architected modernization of mobile banking app on AWS, integrating with core banking IBM Mainframe via IBM security portals and Kafka.
- **Unilever**: Won £20M opportunity through capability assessment and roadmap development for technology separation supporting £multi-billion business divestiture.

## Glasshouse Technologies | Program Manager

Sep 2013 – Jul 2014

L&G: Consolidated 1,000 Windows 2003 servers to Windows 2012 private cloud with zero downtime. Vodafone: Governance structure for 100+ security projects portfolio.

## CSC | Senior Project Manager

Feb 2006 – May 2013

Led multiple data centre migrations (500–2,000 servers, 300–900 applications) including swing, lift-and-shift, and decommission strategies.

## CERTIFICATIONS

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- FinOps Certified | AWS Solutions Architect | AWS Machine Learning Specialty | Azure Architecture | ITIL Foundation
- 2025 — Michigan University, AI and ML Professional Certificate