Abdel-Fatah Karam

TECHNOLOGY EXECUTIVE — CIO | HEAD OF AI | ENTERPRISE TRANSFORMATION & GOVERNANCE

Cairo, Egypt | +20 109 575 5500 | a_karram@pg.cu.edu.eg | abdel-fatah-karam | Google Scholar

EXECUTIVE PROFILE

Twenty years of director- and board-level accountability for enterprise systems across food production, retail, manufacturing, construction and real estate, including a publicly listed, state-owned company. Currently MIS Director of a food production and retail group: technology strategy, an eight-figure EGP budget, two departments, and the systems serving 30+ sites and 1,500+ users, reporting to the group board.

Head of AI at MeetusVR, accountable for AI strategy and for a multi-tenant enterprise AI platform serving commerce, customer service, finance and analytics under a tiered commercial model. Retained by more than ten companies as AI advisor and lecturer, from board-level investment decisions through to engineering practice. Doctoral research at Cairo University on measurement validity in AI evaluation, with a journal manuscript under review.

20+	6	10+	30+
Years at director level	Sectors led across	Companies advised on AI	Sites under current remit

CAREER HIGHLIGHTS

- **Moved a group from reporting to prediction.** Demand forecasting and computer-vision quality inspection now operate in production on the line, reducing spoilage and defects reaching customers.
- **Established a complete technology function at a construction group with no prior in-house IT** — infrastructure, a custom ERP, a control framework and an eight-person team.
- **Re-engineered construction operations end to end**, integrating project sites, execution technical offices and procurement into a single workflow and removing a delivery bottleneck the business had carried for years.
- **Delivered ITGC, ITAC, SOX 404 and ISO 27001 control environments at three employers**, including under listed-company and state-ownership scrutiny.
- **Built and productised a multi-tenant enterprise AI platform**, with tiered service levels and self-service organisation onboarding, deliberately architected across multiple model vendors rather than tied to one.
- **Delivered a group-wide ERP programme on time and on budget**, spanning finance, supply chain, manufacturing, retail and HR.
- **Advised and trained more than ten companies** on AI strategy, architecture, governance and adoption.

EXECUTIVE SCOPE & ACCOUNTABILITY

Strategy & direction	Technology strategy and architecture standards; digital and AI transformation agendas; build-versus-buy and platform selection; portfolio prioritisation; multi-year roadmaps; operating-model design; vendor independence and concentration risk
Commercial ownership	Eight-figure EGP budgets, capital and operating; vendor and implementation-partner selection; contract and SLA negotiation; licence rationalisation; procurement; investment cases and cost-to-serve
Organisational leadership	Building and leading IT and IS departments; structuring teams around delivery rather than function; capability development, succession and retention; establishing internal AI capability
Board & stakeholder engagement	Reporting to boards and group holding companies; translating technology risk and investment into business terms; aligning finance, supply chain, production, commercial and HR leadership behind one systems agenda
Governance & assurance	Accountable owner for ITGC and ITAC control environments, SOX 404 compliance, ISO 27001 and COBIT-aligned GRC, access governance and segregation of duties, disaster recovery, business continuity and responsible-AI governance
Delivery accountability	ERP and enterprise programmes end to end — requirements, architecture, integration, migration, testing, cutover, go-live, hypercare and continuous improvement — across multi-site, multi-company groups

Languages	Arabic (native); English (professional working)

SECTOR EXPERIENCE

Food production & retail	Multi-site manufacturing and a 30+ outlet retail estate: production planning, costing, quality, warehousing, POS, and demand forecasting
Construction	Project sites, execution technical offices, procurement and subcontractor management; project costing and progress control
Real estate — listed & state-owned	Property sales, contracts, collections and customer systems under public-company governance and regulatory scrutiny
Manufacturing & industrial	Textile and industrial operations across cotton, dyeing and allied businesses
Trading & distribution	Purchasing, inventory, replenishment and distribution across multi-entity groups
Technology & VR	Enterprise AI platform serving multiple client organisations under a tiered commercial model

EXECUTIVE EXPERIENCE

MIS Director

2021 – Present

Tseppas MG — *Food Production & Retail*

- Own the group technology agenda, reporting to the board, with accountability for an eight-figure EGP budget, two departments totalling 16 IT and IS professionals, and the systems serving 30+ production and retail sites and more than 1,500 users.
- Set direction for the group's enterprise landscape on Microsoft Dynamics AX — finance and costing, supply chain and warehousing, manufacturing, retail POS, sales and HR — and delivered its largest programme on time and on budget.
- Introduced production machine learning: demand forecasting across the group, and computer-vision quality inspection on the line, reducing spoilage and quality defects reaching customers.
- Improved month-end financial close, system availability, stock accuracy and management-reporting turnaround, with gains of 10–25% on the strongest measures.
- Own the control environment: ITGC and ITAC controls supporting external audit, SOX 404 compliance, and ISO 27001 / COBIT-aligned GRC across the group.
- Absorbed sustained workload growth through automation rather than headcount, consolidated vendor contracts, and strengthened the inherited backup and disaster-recovery position, within approved capital.
- Extended competitive monitoring across the group's principal market rivals, feeding pricing and range decisions from systematic data rather than anecdote.

Chief Information Technology Officer

2018 – 2021

CONSTEC — *Construction*

- Recruited to establish a technology function that did not exist. Built the infrastructure, core systems, a custom-built ERP and a team of 8, and set the standards the business continues to operate on.
- Identified the operational disconnect between project sites, execution technical offices and procurement, and designed an integrated workflow spanning site requisition, technical review, purchase request, supplier award and delivery to site.
- Materials reached sites faster as a result, and project managers, owners and contractors gained live visibility of progress for the first time.
- Digitised construction project management across project costing, progress tracking and subcontractor processes.
- Established IT governance, security and external-audit readiness, including ITGC and ITAC controls, in an organisation with no prior control framework.

Information Systems & IT Director

2015 – 2018

Heliopolis Company for Housing and Development — *Real Estate — publicly listed, state-owned*

- Led information systems for one of Egypt's largest developers, where governance, audit and public accountability were regulatory obligations rather than internal preferences.
- Implemented and upgraded the ERP, and digitised property sales, contracts and customer systems underpinning the company's revenue cycle.
- Built the infrastructure and multi-site connectivity the business ran on.
- Established governance, audit readiness and security controls including ITGC and ITAC, to a standard that withstood external scrutiny.

IT Director / IT Manager

2007 – 2015

Cairo Cotton Center, Cairo Dyeing Center, T&C, Green Hill — *Industrial, Construction & Real Estate*

- Directed technology across four companies spanning three industries, covering enterprise systems, infrastructure, databases, security and technical operations.
- Owned availability, backup and recovery, access control and end-user services across multiple sites and materially different operating models.

Oracle & SAP Implementation Consultant

2004 – 2007

ECTC — *Trading & Construction*

- Delivered full-cycle Oracle and SAP implementations: requirements, configuration, data migration, testing, training and rollout.

ERP Application Support Specialist

2001 – 2004

MISR 2000 — *Microsoft Gold Partner*

- ERP application support, customisation and client deployments across a Microsoft Gold Partner's customer base.

AI LEADERSHIP — MEETUSVR

Head of AI — AI Agents, RAG & Machine Learning

2022 – Present

MeetusVR — *Concurrent engagement*

Accountable for AI strategy and for the enterprise AI platform delivering it: a multi-tenant gateway serving commerce, customer service, finance and analytics for client organisations, deployed through a controlled pipeline across development, UAT and production.

Commercial and product architecture

- **Productised, not bespoke.** Structured as tiered service levels — basic, advanced and premium — so capability maps to price and the platform sells rather than being rebuilt per client.
- **Self-service onboarding.** Organisations are activated from the dashboard, with their catalogue, branches, delivery zones and content indexed automatically. Onboarding cost per client is close to zero, which is what makes a multi-tenant model viable.
- **Vendor independence by design.** Built across multiple model providers rather than committed to one, keeping concentration risk, pricing exposure and migration cost under control as the market moves.
- **Tenant isolation.** Each organisation's knowledge is indexed and served in isolation — a commercial and data-protection requirement before it is a technical one.
- **Running-cost discipline.** Only changed material is re-indexed, and consumption is measured per request, so unit economics stay legible as usage grows. AI programmes fail on running cost as often as on capability.

Capability delivered to client businesses

- **Specialised agents under a single router.** Sales, customer support, company information and orders, with intent classification directing each query, rather than one general assistant answering everything adequately.
- **Grounded in the client's own data.** Retrieval-augmented generation over each organisation's catalogue, branches, delivery zones and published content — the difference between an assistant that sells and one that invents.
- **Answers from the system of record.** Natural-language querying of operational data for the structured questions retrieval cannot serve.

- **Commercial intelligence.** Recommendation built on purchase behaviour, and scheduled competitive monitoring of rival catalogues and pricing.
- **Finance document intelligence.** Question answering over uploaded financial documents, scoped per organisation, user and document.
- **Service escalation.** Complaint and sentiment detection triggering human escalation, so the system knows what it should not attempt to handle.
- **Events and operations.** Event management, order enquiry and logistics support integrated with the client's operational endpoints.
- **Arabic as a first-class language.** Detection and orthographic normalisation so Arabic classifies as reliably as English — a differentiator in this market.
- **Embedded in the product.** Integrated into the VR environment itself rather than bolted on as a web widget.

Governance and operational control

- Authenticated access, structured logging and error capture, documented interfaces and health monitoring — the controls that let an AI system be audited rather than merely demonstrated.
- Per-tenant scheduled retraining, with classifier performance measured on accuracy, F1 and Cohen's κ under stratified validation. Model quality is a governed metric, not an assumption.

ADVISORY & THOUGHT LEADERSHIP

Corporate AI Advisor & Lecturer

2021 – Present

Independent practice *10+ private companies*

Retained by boards and executive teams to establish where AI creates value in their business and what it would take to realise it. Programmes run from board-level investment framing through to engineering practice, and are designed to leave capability behind.

Advisory mandate

- **Separating opportunity from theatre.** The most valuable service rendered is often telling an executive team which AI proposals are not technically viable, and why, before budget is committed.
- **Investment framing.** Prioritisation by return and feasibility, build-versus-buy, cost and risk exposure, and realistic expectations of what a pilot proves and what it does not.
- **Roadmaps that survive contact.** Use-case discovery, proof-of-concept design, and the pilot-to-production path most organisations never complete.
- **Operating model.** Establishing internal AI teams and centres of excellence, so capability accrues to the company rather than to a vendor.
- **Reducing dependence on generic tooling.** Organisation-specific retrieval and knowledge systems in place of off-the-shelf assistants that cannot see company data.
- **Translation.** Bridging executives, business departments, data teams and software engineers — the failure point in most stalled AI programmes.

Curriculum delivered

1. AI fundamentals	AI concepts and business applications; machine learning versus deep learning versus generative AI; supervised, unsupervised and reinforcement learning; AI maturity and organisational readiness; identifying high-value AI opportunities
2. Machine learning	Classification and regression; clustering and customer segmentation; forecasting and predictive analytics; recommendation systems; feature engineering; model training, testing and evaluation; overfitting, bias, accuracy, precision, recall, F1 and ROC-AUC; model deployment and monitoring
3. Data science	Data collection and preparation; cleaning and transformation; exploratory data analysis; statistical analysis; business intelligence and visualisation; data quality and governance; building data-driven decision-making cultures
4. Generative AI & LLMs	How large language models work; enterprise applications of ChatGPT-style systems; prompt engineering; structured output and tool use; LLM APIs and enterprise integration; model selection and evaluation; cost, latency and quality optimisation
5. Retrieval-augmented generation	RAG architecture; document ingestion and chunking; embeddings; vector databases; semantic and hybrid search; re-ranking; context construction; grounded enterprise assistants; hallucination reduction; RAG evaluation and monitoring

6. AI agents & agentic systems	Agent architecture; planning and reasoning; tool and function calling; memory systems; multi-agent architectures; human-in-the-loop workflows; autonomous business processes; agent orchestration; guardrails and approval mechanisms
7. Enterprise AI architecture	Connecting AI with ERP, CRM, e-commerce and internal systems; APIs and microservices; enterprise knowledge bases; data pipelines; AI gateways; model and vendor selection; cloud versus private deployment; security and access control
8. AI for business functions	Sales and marketing AI; customer-service automation; finance and forecasting; HR analytics and recruitment; supply-chain optimisation; inventory forecasting; e-commerce personalisation; recommendation engines; intelligent document processing
9. AI strategy & transformation	AI use-case discovery; prioritisation by ROI and feasibility; AI roadmaps; proof-of-concept design; pilot-to-production strategy; build-versus-buy decisions; AI operating models; establishing internal AI teams and centres of excellence
10. Responsible AI & governance	Data privacy; AI security; hallucination and reliability; model bias; human oversight; AI governance; risk classification; auditability and monitoring; responsible enterprise adoption

Outcomes for client organisations

The programmes move organisations along a defined progression — **data** → **intelligence** → **prediction** → **automation** → **AI agents** → **business transformation** — and are judged on movement along it.

- Management teams able to identify where AI creates measurable value, and to convert business problems into realistic machine-learning use cases.
- Executives equipped to reason about AI investment, cost, risk and expected return rather than defer to vendors.
- Technical teams fluent in modern architectures — large language models, retrieval-augmented generation and agents.
- Corporate data recognised and governed as a strategic asset, with process-automation opportunities identified against it.
- Predictive analytics introduced for forecasting and decision support, and AI applied to customer experience, personalisation and e-commerce.
- Defined transformation roadmaps, and organisation-specific knowledge systems replacing dependence on generic tools.
- Raised standards of AI security, governance, privacy and responsible deployment.
- Organisations moved from experimentation toward production-ready systems.

TECHNOLOGY

Artificial intelligence	Retrieval-augmented generation, LLM agent orchestration and routing, vector search and embeddings, natural-language querying of operational data, recommender systems, prompt engineering, model selection and evaluation; LangChain, OpenAI, Gemini, LLaMA, ChromaDB, TensorFlow/Keras, scikit-learn, BERT, LSTM, CNNs
Enterprise systems	Microsoft Dynamics AX, SAP, Oracle ERP, custom-built ERP, retail POS, Power BI, business intelligence and executive reporting
Data & databases	Oracle Database, Microsoft SQL Server, MySQL, MongoDB, ChromaDB, data modelling, ETL pipelines, data quality and governance
Platforms & infrastructure	Windows Server, Active Directory, Microsoft Exchange, Microsoft 365, virtualisation, cloud and VPS hosting, networking, backup and disaster recovery
Engineering & delivery	Python, C#/.NET, SQL, Flask, Docker, CI/CD pipelines, Git

EDUCATION

PhD, Software Engineering — Thesis submitted

Cairo University, Faculty of Graduate Studies for Statistical Research

Thesis: *Harnessing Large Language Models for Document Retrieval QA: A Cross-Domain Performance Comparison*. Defence expected January 2027.

Supervisors: Prof. Mervat Gheith and Dr. Tarek Ali.

Master, Software Engineering 2019 – 2021
Cairo University, Faculty of Graduate Studies for Statistical Research
Thesis: *An Enhanced Approach for Non-Parametric Machine Learning Classifiers* — KMKNN, cutting classification time by at least 25% with no loss of accuracy.
Supervisors: Dr. Ammar Mohammed and Dr. Abdelmonem Helmy.

Postgraduate Diploma, Software Engineering
Cairo University

Postgraduate Diploma, Computer Science
Cairo University

BSc, Information Technology
Cairo Higher Academy

RESEARCH

Doctoral research on measurement validity in AI evaluation: establishing when a reported score can be read as a verdict for the kind of answer it summarises, and when it cannot. The work builds a reproducible audit, run across multiple datasets, answer generators and retrieval conditions, that decides per dataset and answer type whether a result may be reported, qualified, or withheld. It is the diligence that belongs upstream of any board decision taken on an AI benchmark.

[2] A.-F. Karam, A. Helmy, A. Mohammed. **An approach to enhance KNN based on data clustering using K-medoid.** *2nd International Mobile, Intelligent, and Ubiquitous Computing Conference (MIUCC), IEEE*, 2022.

[1] A.-F. Karam, M. Embaby, H. El-Kady, S. Abdel-Hafeez, G. Nabil, A. Mohammed. **Applying convolutional neural networks for image detection.** *International Conference on Smart Applications, Communications and Networking (SmartNets), IEEE*, 2019.