

Hany Mohamed Gamal El Din Mohamed Hassanien

Co-Founder | Chief Technology Officer (CTO) | Chief Information Security Officer (CISO)

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EXECUTIVE PROFILE

A decisive, visionary technology executive and cybersecurity pioneer with over 22 years of enterprise software architecture, infrastructure engineering, and corporate leadership experience. Proven track record architecting highly scalable, cloud-native FinTech infrastructures built from the ground up to support massive transaction volume while meeting strict regulatory standards (PCI DSS v4.0.1). Trusted advisor across 6 countries for mission-critical e-government platforms, core international banking networks, and complex enterprise software ecosystems. Combines elite engineering roots ranging from low-level operating system adaptations to advanced AI autonomous agent frameworks with sophisticated corporate governance capabilities to protect assets, build trust, and scale enterprise market share.

CORE COMPETENCIES

- Executive Technology Governance: Strategic Technical Planning, Enterprise Architecture, Multi-Partner Corporate Dynamics, Multi-Million Transaction Scaling.
- Cybersecurity & Compliance Operations: PCI DSS v4.0.1 Certification Lead, On-Premise & Cloud Datacenter Hardening, Advanced Network Segmentation, Cryptographic Controls.
- Infrastructure & Systems Engineering: Enterprise Linux (Ubuntu Hardening), Custom OpenSSH Engineering (with-pam), Network UPS Tools (NUT) Protocols, MikroTik/Cisco Network Firewalls.
- AI & Autonomous Engineering: Agent Development Kit (ADK) Architectures, Behavioral Detection Models, Real-Time Financial Fraud & Predictive Processing Engines.
- Low-Level & Core Development: Mobile Core Reshaping, High-Concurrency Parsers, Embedded Systems Frameworks, Embedded Server Architecture.

PROFESSIONAL EXPERIENCE

****Paycore** | *Co-Founder, CTO & CISO***

Jan 2023 Present | Cairo / Hurgada, Egypt

- Founded and architected PayCore's core payment infrastructure from scratch, engineering a cloud-native, high-throughput microservices architecture optimized for the MENA FinTech ecosystem.
- Own the entire technical strategy, cybersecurity roadmap, and executive governance structure to handle intensive transaction volume securely.
- Spearhead technical evidence compilation, data protection enforcement, and server hardening protocols required for official PCI DSS v4.0.1 certification.
- Pioneered autonomous software frameworks using the Agent Development Kit (ADK) to integrate real-time behavioral fraud detection and transaction success prediction models directly into core processing pipelines.
- Manage a complex structural founding structure, balancing technical execution with

****IMPACT Technology LTD** | *Director of Operations***

Jul 2016 Oct 2017 | Cairo, Egypt

- Built and managed a 20-person technology company from zero to fully operational within a 12-month window.
- Successfully launched two major enterprise web platforms and steered engineering practices towards target CMMI Level 3 certification parameters.

****Future Markets Ltd** | *Senior Software Engineer***

May 2015 Jul 2016 | Cairo, Egypt

- Designed and engineered an elite brokerage accounting, stock trading, and Forex processing platform completely from scratch.
- Ensured extreme mathematical precision, low-latency execution, and non-negotiable end-to-end auditability layers.

****Trade World Gates Solutions** | *Business Development Manager***

Apr 2014 Mar 2015 | Cairo, Egypt

- Analyzed, designed, and structured enterprise technical architectures, gathering explicit business specifications and delivering high-level IT infrastructure consulting.

****ThePlanet** | *Development Consultant***

Mar 2013 Feb 2014 | Cairo, Egypt

- Standardized the engineering lifecycles and software guidelines, developing a new project management system and preparing systems infrastructure for the JuiceLabs Startup Accelerator launch.

****HUB43** | *Chief Technology Officer (CTO)***

Apr 2012 Mar 2013 | Cairo, Egypt

- Directed the overarching software roadmap, team compositions, and infrastructure engineering paths for scaling web-tier environments.

****Makkah Emirate Government** | *Senior Programmer & E-Government Consultant***

Dec 2009 Nov 2011 | Makkah, Saudi Arabia

- Delivered a mission-critical suite of highly secure e-government systems for the Kingdom of Saudi Arabia (KSA).
- Architected security-hardened HR networks, automated regional citizen service ticketing systems, and designed custom inventory tracking configurations for arms and weapons tracking across kingdom-wide government warehouses.

****Germanischer Lloyd AG** | *IT Infrastructure Manager***

Sep 2007 Aug 2009 | Abu Dhabi, United Arab Emirates

- Managed corporate computing footprints, international network topologies, and physical server storage arrays to ensure absolute resilience and operational continuity.

****PlusPoint GmbH** | *Mobility Development Department Manager***

Sep 2007 Aug 2008 | Dubai, United Arab Emirates

- Directed an engineering team focused on mobile applications, managing real-time data sync, memory footprints, and client delivery.

****BMB Group** | *Sr. Programmer & Software Department Manager***

****Maktabak Dot Net / Independent Consulting** | *Lead Architect / Systems Consultant***

Sep 2004 Oct 2022 (Parallel Advisory & Independent Execution) | Cross-Regional

- Built and scaled a premium software consultancy serving clients across 6 countries over an 18-year timeline, delivering 20+ enterprise solutions in FinTech, hospitality, logistics, and government.

OPEN SOURCE & TECHNICAL CONTRIBUTIONS

- Better-Arabic-Reshaper (Java / Android Platform): Architected framework changes designed to support native Arabic reading and writing rendering layers across mobile platforms.
- async-csv-parser (JavaScript): Built an optimized, asynchronous CSV data parsing application tailored for intensive backend pipelines.
- Embedded HTTP Server Engine (Java): Authored an ultra-lightweight, embeddable, core HTTP server framework executing raw network socket handshakes.
- 3D Line Intersection Algorithm: Implemented high-precision geometric calculations determining 3D/2D vector space intersections for complex tracking scripts.

TECHNICAL TOOLKIT & PLATFORMS

- Core Systems & Security: PCI DSS v4.0.1, Linux (Ubuntu Server Hardening), Custom OpenSSH Engine Compiling, Cryptography.
- Networking Hardware & Control: Cisco Systems Routing/Switching infrastructure, MikroTik Enterprise Firewalls, Network UPS Tools (NUT) automated signaling protocols.
- Cloud Eco-Systems: Google Cloud Platform (IAM, Advanced Service Accounts), Cloudflare Enterprise Proxy (R2 Storage, WAF Edge Engineering), Vercel Production Infrastructure.
- Languages & Toolkits: Python, Java, Bash Shell Scripting, JavaScript, Agent Development Kit (ADK), GEAR paradigms.

EDUCATION & ACADEMIC CREDENTIALS

- Master of Science (M.Sc.) in Computer Systems Security / Information Systems Security
- Bachelors Degree in Touristic Guidance
- Ongoing Academic Focus: Advanced Research in Cryptographic Implementations, Distributed System Design, and AI Agentic Workflows.

PUBLICATIONS & COMMUNITIES

- Founder & Author, The Archipoeta (hanigamal.com): Actively research and publish on information architecture, systemic data management, and security infrastructure principles.
- Professional Initiatives: Established localized fintech advocacy groups focused on technical strategy and next-generation transaction processing ecosystems.