AHMED NEMREEN

AI Solution Architect | Enterprise AI Integration | Secure Digital Platforms

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EXECUTIVE PROFILE

Solution architect and technology leader with 16+ years of enterprise platform experience and hands-on evidence designing an Arabic-native AI compliance product. Combines application architecture, AI and LLM integration, Arabic NLP, vector-enabled data, APIs, identity, security, multi-tenancy, cloud deployment, architecture governance, and end-to-end technical delivery.

Experienced in connecting business and compliance requirements to secure AI-enabled solution designs covering processing pipelines, data services, model integration, APIs, access control, privacy, deployment, observability needs, and practical delivery within enterprise digital platforms.

CORE AI SOLUTION & PLATFORM ARCHITECTURE COMPETENCIES

- AI Solution & Platform Architecture
- AI/LLM Integration & Arabic NLP
- PostgreSQL, pgvector & Data Services
- Multi-Tenant SaaS Architecture
- Identity, RBAC & Security-by-Design
- AWS EKS, Kubernetes & CI/CD
- API Integration & AI Governance

PROFESSIONAL DEVELOPMENT

- **TOGAF® 10 Enterprise Architecture Foundation:** coursework completed
- **TOGAF® 10 Enterprise Architecture Practitioner:** coursework completed
- **ITIL Foundation:** coursework completed
- **AWS Certified Solutions Architect – Associate:** in progress

FOCUS PROJECTS AND AI ARCHITECTURE INITIATIVES

MIM Digital Platform Portfolio

Marsad (NIMIC) - nimic.mim.gov.sa

- Solution architecture for the MIM analytics and digital-services platform across application modularization, API and BI integration, data-driven dashboards, performance, security, CMS modernization, and cloud-ready delivery practices.

Tarmeez / NRPS - psnr.mim.gov.sa

- Solution-architecture focus for unified product and service data, standards-based classification, secure integration APIs, real-time dashboards, predictive insights, and scalable national data services.

GOSI Digital Program Portfolio

GOSI Main Portal - gosi.gov.sa

- Platform architecture for GOSI public digital services, covering integration, role-based journeys, reusable application patterns, security, accessibility, performance, and technology evaluation.

Taminaty - taminaty.gosi.gov.sa

- Architecture guidance for secure customer self-service journeys, shared components, enterprise integrations, responsive delivery, accessibility, and performance.

Labeeb - masdr.sa/labeeb

- AI solution-architecture focus across human and virtual-agent orchestration, Arabic-native experiences, omnichannel interactions, enterprise integration, local hosting, and real-time analytics.

AI, PERSONAL PROJECTS & OPEN-SOURCE WORK

Independent projects built and owned outside client engagements, as sole developer/architect or freelancer - providing direct evidence across AI solution architecture, Arabic NLP, platform engineering, application architecture, and product delivery.

Hisn (حِصْن) — Full Solution Architecture, Sole Developer & Product Owner

Project: http://hisnlab.com/

- Arabic-native DLP and AI compliance SaaS for Saudi enterprise and government customers (NCA ECC 2.0, PDPL, SAMA CSF), designed and built end-to-end as sole architect and developer.
- Owns all architecture decisions and documentation, including schema-per-tenant multi-tenancy isolation (ADR-001), field-level RBAC (ADR-002), and a 4-layer AI processing pipeline (Language → PII → Intent → Risk).
- Architecture stack: Angular/Nx, NestJS, FastAPI, PostgreSQL with pgvector, Kubernetes (EKS) on AWS me-central-1, Keycloak identity, and a custom Arabic NLP model (AraBERT-DLP).
- Produced full architecture artifacts: Technical Architecture Document, OpenAPI contract, CI/CD pipeline definition, privacy impact assessment, and a 7-portal role-isolated application design.

DGA Angular — Platforms Code Design System

Live demo: https://nemreen.info/dga/

- Designed and published an RTL-first Angular design system and UI component library for Saudi digital government portals, including design tokens and reusable component/portal-shell architecture. Published as npm packages (@a.nemreen/dga-ui, @a.nemreen/dga-tokens).

loggo — Frontend Logging Package

Live demo: https://nemreen.info/loggo

- Authored and published a zero-dependency TypeScript logging package (@a.nemreen/loggo, MIT) that provides styled console output in development and silently no-ops in production — a drop-in replacement for console.log/warn/error/table/group/time.

a11y — Accessibility Toolkit

Live demo: https://nemreen.info/a11y

- Designed and published a framework-agnostic accessibility toolkit (@a.nemreen/a11y, MIT) covering quick profiles, visual filters, and a reading mask, with bilingual Arabic/English RTL support — works across Angular, React, Vue, and plain HTML with no framework peer dependencies.

WORK EXPERIENCE

Technical Lead and Solution Architecture Consultant *Apr 2025 – Present*

DIYAR - MIM Project (Riyadh, Saudi Arabia)

Technical Lead and Solution Architecture Consultant responsible for application and solution architecture, technical leadership, technology evaluation, and UX guidance across enterprise digital platforms. Translates business and non-functional requirements into secure, scalable, API-driven designs and guides delivery through architecture reviews, engineering standards, integration decisions, DevOps collaboration, and production optimization. The MIM portfolio includes Marsad (NIMIC) and Tarmeez / NRPS as major digital platforms.

- Lead solution and application architecture across enterprise digital platforms, translating business capabilities and non-functional requirements into secure, scalable technical designs.
- Define architecture principles, API-driven integration patterns, engineering standards, reusable platform patterns, and technical solutions with product, design, and back-end teams.
- Lead architecture and technical design reviews and guide engineering decisions across application, integration, identity, performance, and maintainability concerns.
- Own technical decisions from discovery and solution design through implementation, release, and post-production optimization.
- Support Agile planning and estimation while identifying architecture, data, integration, security, and delivery risks and communicating trade-offs.
- Use usability reviews, journey mapping, performance data, and user behavior to ensure technology choices support the intended service experience.
- Evaluate emerging technologies and architecture patterns, including AI-enabled solution opportunities, against business value, security, practicality, and sustainability.
- Contribute to governance covering architecture quality, automated testing, technical debt, privacy considerations, and controlled technology adoption.
- Establish reusable application and interface patterns that support consistent delivery across role-based digital platforms.
- Collaborate with DevOps teams on CI/CD architecture, release governance, deployment reliability, and cloud-ready platform practices.

Technical Lead | Application Architecture | R&D Engineer *Nov 2023 – Apr 2025*

EJADA - GOSI Project (Riyadh, Saudi Arabia)

Technical Lead focused on application architecture, technology evaluation, integration, and high-performance web and mobile platforms. Led R&D, architecture reviews, framework decisions, engineering standards, reusable components, mentoring, and collaboration with back-end and DevOps teams - experience directly applicable to AI-enabled enterprise platform delivery. The GOSI portfolio included gosi.gov.sa, Taminaty, and Labeeb as major digital platforms.

- Lead and mentor a team of developers, providing comprehensive architecture and code reviews and guidance on application structure and framework usage.
- Oversee the architecture of UI components and platform modules, ensuring reusable and modular design that maintains consistency across applications.
- Enforce architecture and code standards and best practices to uphold high-quality, maintainable codebases.
- Architect robust application frameworks and component libraries for diverse products and platforms.
- Evaluate and select appropriate frameworks and architecture patterns, such as React and Angular, tailored to specific project requirements.
- Collaborate with back-end developers and DevOps engineers to design seamless integration architecture, tooling, and infrastructure.

- Oversee implementation of pixel-perfect, responsive interfaces across platforms and devices, based on UX design mockups and prototypes.
- Apply modern HTML5, CSS3, and JavaScript ES6+ capabilities within the broader application architecture to deliver performant, high-quality implementations.
- Recommend and implement advanced performance optimizations at the architecture level.
- Track emerging front-end and platform technologies, advocating for adoption where it strengthens the architecture.
- Contribute to research and development initiatives to explore and integrate new architecture approaches and technologies.
- Establish and enforce coding standards, naming conventions, and organizational methodologies as part of architecture governance across teams.
- Track UX design trends, standards, and best practices, guiding the team in adoption of methods that align with the overall platform architecture.

Lead Front-End Developer | UI,UX Developer *Jun 2021 – Oct 2023*

EJADA - GOSI Project (Riyadh, Saudi Arabia)

Led front-end development and UI/UX design projects, managed a team of developers, created responsive and user-centric interfaces, collaborated with cross-functional teams, and optimized application performance using modern web technologies.

- Led UI/UX design and development for GOSI digital platforms, conducting user research and producing wireframes, prototypes, and visual designs.
- Led and mentored a team of front-end developers, conducting code reviews and enforcing coding standards.
- Partnered with product managers, designers, and back-end developers to translate business requirements into user-centric solutions.
- Managed project timelines and task delegation, ensuring on-time delivery of features and updates.
- Introduced process and tooling improvements to strengthen performance and scalability.
- Mentored junior designers and developers, building a collaborative team culture.

Senior Front-End Developer - UX Developer *Jun 2015 – May 2021*

Naseej - GOSI Project (Riyadh, Saudi Arabia)

Designed and implemented user interfaces, led front-end and UX projects, collaborated with cross-functional teams, ensured responsive and intuitive user experiences, and optimized performance using modern web technologies — building the platform and engineering foundation that later supported a move into architecture and technical leadership.

- Primary web designer / front-end web developer with advertising firm.
- Develop prototype designs into fully functional websites.
- Utilize expertise in front-end development technologies such as HTML, XHTML, CSS, Java and jQuery to enhance interactivity.
- Create banner ads, email advertisements / newsletters.
- Revamping an old website to new and modern sites.
- Integrate HTML code with .NET.

Senior Front-End Developer *Nov 2013 – May 2015*

iHorizons (Amman-Jordan)

Developed and optimized user interfaces, led front-end projects, and collaborated with designers and back-end developers to deliver responsive, performant applications.

- Developing PHP applications, as well as connecting websites with MySQL database and writing queries to retrieve data from it.
- Using web content management systems to manage websites (Joomla / Rama-Vision CMS / WordPress / ...).
- Lead the planning and implementation of projects.
- Track project deliverables using appropriate tools.
- Present reports defining project progress, problems and solutions.
- Quality assurance.

Lead Developer *Apr 2012 – Oct 2013*

Chromovision (Amman-Jordan)

Led development projects and managed a team of developers, designing and implementing features while ensuring code quality and application performance.

- Developing PHP applications, as well as connecting websites with MySQL database and writing queries to retrieve data from it.
- Using web content management systems to manage websites (Joomla / Rama-Vision CMS / WordPress / ...).
- Lead the planning and implementation of projects.
- Track project deliverables using appropriate tools.
- Present reports defining project progress, problems and solutions.
- Quality assurance.

Web Developer *Mar 2011 – Apr 2012*

Chromovision (Amman-Jordan)

Developed and maintained websites, collaborated on feature implementations, debugged issues, and optimized performance using HTML, CSS, and JavaScript.

- Developing PHP applications, as well as connecting websites with MySQL database and writing queries to retrieve data from it.
- Using web content management systems to manage websites (Joomla / Rama-Vision CMS / WordPress / ...).
- Quality assurance.

Consulting Assistant and ARIS Tools Technical *Jul 2010 – Feb 2011*

Reach Group (Amman-Jordan)

Assisted with business process consulting and reengineering using ARIS Tools, developing process architectures and workflow diagrams and preparing documentation — early exposure to enterprise process modeling that continues to inform an architecture-oriented, business-aligned approach to technology delivery.

- Participating in providing consulting services regarding business process management and reengineering.
- Participating in improving processes to reduce waste and continuously improve performance.
- Perform continuous reviews to align processes with business changes.
- Develop business process architectures, process relationship maps, functional relationship maps, cross-functional maps and workflow diagrams using the ARIS BPM tool.
- Research industry trends, best practices and improvement opportunities from all sectors.
- Interviewing client's employees, management team and other stakeholders.
- Preparing all reports, forms and documents needed for business process reengineering.

Technical Support *Dec 2009 – Jul 2010*

Network Exchange Technology (Amman-Jordan)

Handled technical support for ISP services, including troubleshooting, device setup, and network maintenance.

- VOIP System (devices configuration and setup, and billing system management).
- Troubleshooting problems (Dialup – ADSL – Mdaemon Mail Server).
- Maintenance (hardware and software).
- NOC.
- Routing configuration.
- Good knowledge and background in Bluecoat and Fortinet.

EDUCATION

BSc in Computer Information Systems *Sep 2005 – Feb 2009*

Al-Hussain Bin Talal University, Ma'an – Jordan

SKILLS

AI Architecture & Governance

- **AI Solution Architecture: Business Use Cases, Processing Pipelines, Model and Platform Integration**
- **Integration: AI/LLM, Conversational AI, REST APIs, FastAPI, NestJS, Enterprise and Omnichannel Integration**
- **Governance: Architecture Decisions, Technical Architecture Documents, OpenAPI Contracts, Reviews**
- **Security & Privacy: RBAC, Field-Level Access, Keycloak, Privacy Impact Assessment, Security-by-Design**
- **Quality Attributes: Scalability, Performance, Multi-Tenancy, Maintainability, Technical Risk**

AI Cloud & Platform

- **Cloud: AWS me-central-1, Kubernetes / EKS, Containers, CI/CD (Hisn)**
- **Identity & Platform: Keycloak / IAM, Schema-per-Tenant Isolation, Role-Isolated Portals (Hisn)**

AI Application Architecture

- **Frameworks: Angular, Nx, NestJS, FastAPI (Hisn)**
- **AI Platform Integration: REST APIs, OpenAPI Contracts, Role-Based Application Design**
- **Content & Enterprise Platforms: Headless CMS, Digital Portals, API Integration**

Data & AI Engineering

- **Data: PostgreSQL, pgvector, Schema-per-Tenant Multi-Tenancy (Hisn)**
- **AI / NLP: AI/LLM Integration, Arabic NLP, AraBERT-DLP, Language / PII / Intent / Risk Pipeline (Hisn), Arabic Conversational AI (Labeeb)**

Leadership & Delivery

- **Team Leadership:** Leading and Mentoring Teams, Team Management
- **Project Leadership:** Task Delegation, Timeline Management, Comprehensive Code Reviews
- **Continuous Improvement:** Research and Development, Adoption of New Technologies
- **Mentorship:** Training Junior Developers, Fostering Collaborative Work Environments
- **Delivery Tools:** JIRA, Trello, Asana

UX & Digital Platforms

- **UI/UX Design:** Wireframing, Prototyping, Visual Design, User Research
- **Design Systems & Accessibility:** Reusable Component Libraries, Accessibility, RTL/Bilingual Platforms
- **Responsive Design:** Cross-platform Compatibility, Mobile-first Design

- **Performance Optimization:** Code Optimization, Performance Tuning

Soft Skills

- **Collaboration:** Cross-functional Team Collaboration, Effective Communication
- **Problem-Solving:** Troubleshooting, Debugging
- **Consulting:** Business Process Management, Reengineering

Earlier Technologies

Version Control: Git, SVN

Task Runners: Webpack, Gulp, Grunt

Backend Integration: API Integration, .NET Integration

Content Management Systems: Joomla, WordPress, Rama-Vision CMS

Database: MySQL, SQL Queries

Technical Support: VOIP System Setup, Network Troubleshooting, Device Configuration, Bluecoat and Fortinet

Business Process: ARIS Tools, Process Mapping, Workflow Optimization

Design Tools

Figma • Adobe XD • Adobe Photoshop • Adobe Illustrator • Adobe InDesign

LANGUAGES

Arabic
Native

English
Proficient