

TECHNICAL PORTFOLIO · 2026

Hamed Bayani حامد بياني

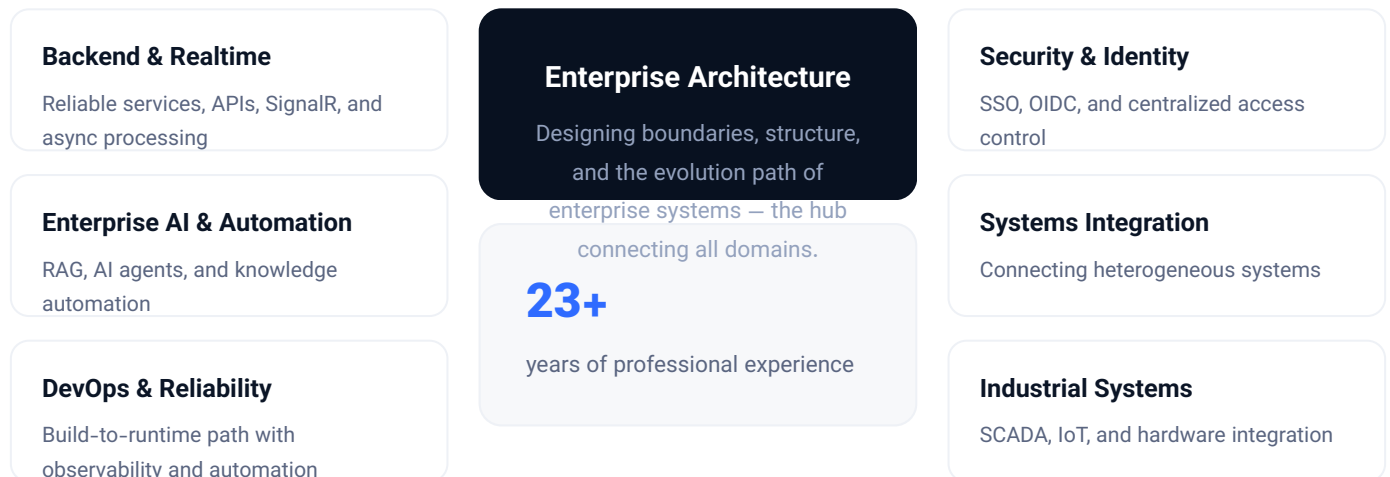
Enterprise Solutions Architect · Technical Lead · Backend & AI Systems

Selected Projects & Technical Case Studies



Architecting, building, and delivering enterprise solutions to production readiness

Hamed Bayani is an Enterprise Solutions Architect and Technical Lead with over 23 years of experience in Enterprise Architecture, Backend, Realtime, DevOps, Security, Industrial Systems, and Enterprise AI. His value goes beyond coding — he carries problems from architecture and contract discovery through implementation, hardening, integration, and delivery evidence.



10 solutions across four domains

Enterprise AI & Automation · Enterprise Software · Realtime & Platform Engineering · Industrial Systems



01

GitiBot – Enterprise AI Assistant

Enterprise AI / Knowledge Retrieval



02

Enterprise Realtime & Mobile Reliability Platform

Realtime / Backend / Mobile Platform



03

Enterprise AI Knowledge & Decision Support Platform

Enterprise AI / Knowledge Platform



04

Engineering Readiness & Delivery Automation

DevOps / Quality Engineering / Delivery Governance



05

Hydrological Resource Monitoring System

Industrial Monitoring / SCADA / IoT



06

Enterprise Integration & Automation Layer

Automation / Systems Integration



07

Enterprise CMMS Platform

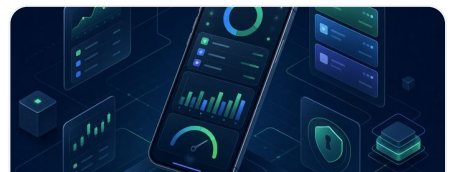
Maintenance / Industrial Enterprise Software



08

Integrated ERP & Business Management Platform

Enterprise Software / ERP



09

Hami – Personal & Family Financial Platform

Personal R&D / FinTech



10

Advanced CAD for Textile Patterning

Engineering Software / CAD



GitiBot – Enterprise AI Assistant

Enterprise AI / Knowledge Retrieval

Role: AI Solution Designer · Enterprise Architect · Technical Lead

Scope: Enterprise AI · Multi-factory

Status: Resume-backed

Confidentiality: Public

Challenge

Organizational knowledge across finance, HR, and insurance was scattered, and access to it was slow and route-dependent.

My Role

AI Solution Designer · Enterprise Architect · Technical Lead

Solution Approach

Designed an AI Agent built on RAG with citation for controlled retrieval and citation-grounded answers.

Engineering Decisions

RAG with citation instead of an uncontrolled LLM

Answers stay traceable and verifiable.

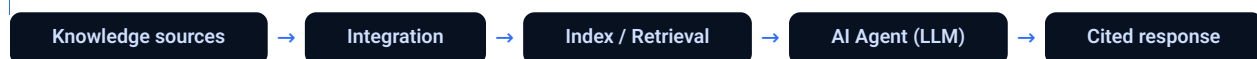
Integrating existing knowledge over a new data silo

Avoids duplication and inconsistency.

Security-aware access (deny-by-default)

Sensitive data stays out of the agent's reach without permission.

Conceptual Architecture Flow



Outcome Axes

Knowledge Access

Auditability

Maintainability

Evidence Level

Designed

Implemented



Enterprise Realtime & Mobile Reliability Platform

Realtime / Backend / Mobile Platform

Role: Solution Architect · Technical Lead · Engineering Governance

Scope: Realtime · Backend · Mobile

Status: Sanitized Case Study

Confidentiality: Sanitized / Anonymous

Challenge

The realtime platform needed predictable behavior under failures and unstable networks.

My Role

Solution Architect · Technical Lead · Engineering Governance

Solution Approach

Designed reconnection with backoff, idempotency, secure local storage, and command verification.

Engineering Decisions

Policy-driven reconnect with backoff

Network behavior stays predictable and controlled.

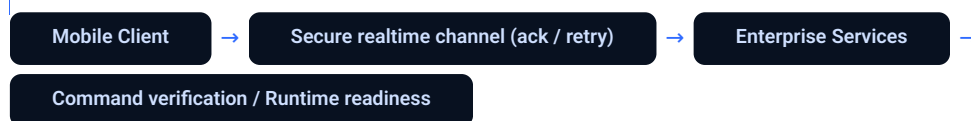
Idempotency in command processing

Prevents duplicate command execution.

Deny-by-default activation

High-risk paths activate only with explicit authorization.

Conceptual Architecture Flow



Outcome Axes

Reliability

Security

Operational Readiness

Evidence Level

Designed

Hardened

This case study has been summarized and sanitized for public presentation. The system name, internal structure, environments, data, and operational specifics have been intentionally omitted.



Enterprise AI Knowledge & Decision Support Platform

Enterprise AI / Knowledge Platform

Role: Enterprise Architect · AI Platform Designer · Technical Governance Lead

Scope: Enterprise AI · Governance

Status: Sanitized Case Study

Confidentiality: Sanitized / Anonymous

Challenge

Using AI in an enterprise required control, auditability, and respect for security boundaries.

My Role

Enterprise Architect · AI Platform Designer · Technical Governance Lead

Solution Approach

Designed a foundation with citation, scope binding, and SSO/OIDC identity integration.

Engineering Decisions

Foundation with citation and governance

Outputs stay traceable and auditable.

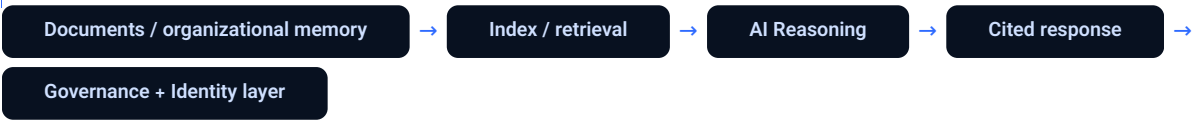
Scope binding for agent access

Agents only reach permitted data.

Identity integration (SSO/OIDC)

Clear security boundary and audit trail.

Conceptual Architecture Flow



Outcome Axes

Governance

Auditability

Security

Knowledge Access

Evidence Level

Designed

Hardened

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Engineering Readiness & Delivery Automation

DevOps / Quality Engineering / Delivery Governance

Role: Technical Lead · DevOps Architect · Engineering Governance Designer

Scope: DevOps · Delivery governance

Status: Sanitized Case Study

Confidentiality: Sanitized / Anonymous

Challenge

Build and delivery depended on manual execution and verbal confidence.

My Role

Technical Lead · DevOps Architect · Engineering Governance Designer

Solution Approach

Automated preflight, quality gates, and evidence packaging in a fail-closed manner.

Engineering Decisions

Rollback-before-write

Immediate recovery path in case of failure.

Fail-closed validation

Any incomplete step stops the whole process.

Evidence packaging (Manifest / Hash)

Deliverables stay verifiable.

Conceptual Architecture Flow



Outcome Axes

Operational Readiness

Auditability

Maintainability

Evidence Level

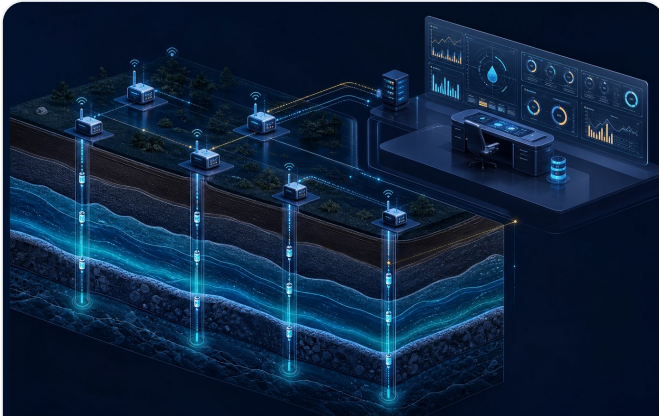
Designed

Implemented

Tested

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Additional solutions



Hydrological Resource Monitoring System

Industrial Monitoring / SCADA / IoT

SCADA + IoT monitoring software for wells, qanats, and water resources.

SCADA

IoT

Monitoring

Hardware Integration



Enterprise Integration & Automation Layer

Automation / Systems Integration

Workflow automation and API orchestration connecting heterogeneous systems.

n8n

REST

Automation

API

Additional solutions



Enterprise CMMS Platform

Maintenance / Industrial Enterprise Software

Maintenance and repair management with an enterprise backend and operational workflow.

.NET

CMMS

Maintenance

Integration



Integrated ERP & Business Management Platform

Enterprise Software / ERP

Sales, marketing, inventory, and accounting in one unified platform.

ERP

Accounting

Inventory

Sales

Additional solutions



Hami — Personal & Family Financial Platform

Personal R&D / FinTech

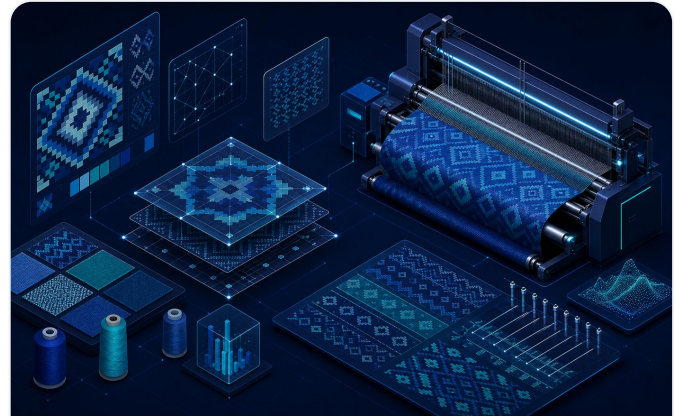
Local-first Android platform for personal and family finance.
Personal R&D — not a commercial release.

Android

Kotlin

Local-first

Finance



Advanced CAD for Textile Patterning

Engineering Software / CAD

Specialized CAD software for carpet and textile design-to-production.

CAD

Textile

Production

How I Work — a defensible, repeatable engineering path

Six steps that, in collaboration with AI — especially ChatGPT — turn text generation into analysis, review, and evidence generation.

1 Discover

Separate fact from assumption — source inspection, contract and dependency discovery, runtime state.

2 Define

Fix the exact change boundary — allowed/forbidden files, change class, runtime and rollback boundaries.

3 Precheck

Verify readiness before build/apply — dependencies, backend readiness, contract compatibility.

4 Implement

Minimal, traceable, architecture- and contract-compatible changes.

5 Validate

Quality gates — logic review, syntax, tests, runtime readiness, secret scan.

6 Evidence

Package the evidence — clean re-run, manifest, SHA256, rollback proof, delivery gate.

Professional Focus

Enterprise Architecture

Backend Engineering

Technical Leadership

Enterprise AI

Systems Integration

DevOps & Reliability

Security & Identity

Email	hbs2480@gmail.com
LinkedIn	linkedin.com/in/hamed-bayani-55042775
GitHub	github.com/HamedBayani
Location	Isfahan, Iran

Available for architecture, technical leadership, enterprise integration and AI solution discussions.

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