

Kouider Bakhti

Software Architect

Enterprise AI • Cloud • Distributed Systems

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Portfolio: www.kouiderbakhti.com

Engineering Motto

Designing software that remains understandable, maintainable, and valuable as technology evolves.

Executive Profile

Software Architect and Senior Software Engineer with more than 34 years of experience designing, modernizing, and delivering enterprise software across distributed systems, cloud-native applications, artificial intelligence, and business-critical platforms. Across three decades of engineering experience in Algeria, Canada, and the United States, I have transformed complex business requirements into scalable, maintainable, and reliable software solutions through software architecture, backend engineering, and customer-focused problem solving.

Today I architect cloud-native, AI-enabled enterprise applications using Python, FastAPI, PostgreSQL, Microsoft Azure, Docker, and OpenAI APIs. I emphasize intentional architecture, technical communication, and engineering documentation through Executive Architecture, AI Workflow, Deployment and Security Architecture, and Architecture Decision Records (ADRs).

Engineering Capabilities

- Software Architecture — Designing scalable, maintainable, and resilient enterprise systems.
- Cloud & Platform Engineering — Building cloud-ready applications using Azure, Docker, and CI/CD.
- Backend Engineering — Developing secure REST APIs using Python, FastAPI, and PostgreSQL.
- AI & Intelligent Automation — Applying OpenAI to production business workflows.
- Data & Business Systems — Designing CRM, ERP, scheduling, and operational data models.

- Technical Leadership & Communication — Producing ADRs, architecture documentation, deployment guides, and workflow diagrams.

Signature Engineering Project

Enterprise AI Customer Engagement Platform

Status: Active Engineering Initiative

Architected and developed a cloud-native Enterprise AI Customer Engagement Platform that demonstrates modern software architecture, conversational AI, secure backend engineering, cloud deployment, and professional engineering documentation.

Architecture Highlights

- Designed layered enterprise architecture.
- Developed secure REST APIs using Python and FastAPI.
- Normalized PostgreSQL CRM database.
- OpenAI integration for conversational AI.
- Azure- and Docker-ready deployment architecture.
- RingCentral messaging integration.

Professional Experience

Independent Software Developer / Software Architect (2026–Present): Enterprise AI platform, REST APIs, Engineering Library.

Founder & Software Architect — WebTek Global Solutions (2004–2026): CRM, ERP, HR, payroll, scheduling, membership, and e-commerce solutions.

Managing Member — Terra Spa LLC (2014–2026): Technology strategy, cloud migration, automation.

Software Developer — Network Solutions (2001–2003): Distributed communication and embedded systems.

Software Development Engineer — ERCO Algeria (1992–1997): Enterprise payroll, HR, accounting, and business systems.

Education & Research

Master of Software Engineering — Université du Québec à Montréal (UQAM)

Graduate Research: Voice over IP, distributed systems, real-time networking, software architecture.

Bachelor of Software Engineering — Djillali Liabès University

Senior Project: Speech Recognition Using Hidden Markov Models (HMMs).

Engineering Philosophy

I believe the best software is measured not only by what it accomplishes today, but by how well it supports tomorrow's engineers. I strive to build systems that remain understandable, maintainable, and valuable as technology evolves.

Professional Portfolio

- Executive Architecture
- AI Workflow
- Deployment Architecture
- Security Architecture
- Architecture Decision Records
- Knowledge Center
- GitHub Engineering Portfolio

Every engineering claim presented in this resume is supported by publicly available architecture documentation or source code.

From enterprise payroll systems and distributed communication software to modern cloud-native AI platforms, my engineering journey reflects more than three decades of continuous learning, adaptation, and architectural evolution.