

FRED W. NIX JR.

Principal Solutions Engineer | AI Applications & Developer Platforms

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SUMMARY

Principal solutions engineer who builds AI agents and developer platforms on a Linux and infrastructure foundation, with a managed book of business: pre-sales through post-sales, demos, custom code, and the executive business case. Twenty-plus years from EMC and Dell to Pure Storage and BlueAlly.

PROFESSIONAL EXPERIENCE

Senior Solutions Architect · BlueAlly Technology Solutions, Atlanta, GA

Apr 2026 – Oct 2026

Pre-sales and post-sales solutions architect supporting six account executives across the Southeast (enterprise, healthcare, higher education, public sector, nonprofits). Owned discovery, architecture, workload sizing, bills of materials, cost and return models, proposals, proof-of-concept design, demos, and custom code on 24 engagements in five months. Closed ~\$150K in the first 90 days and built a seven-figure qualified pipeline. Customers anonymized; figures real.

Custom code, demos, and AI projects

- **Custom demos and code:** built customer-specific demos and prototypes in ~1.5 days using Claude Code and reusable AI workflows; built an internal sales intelligence system in TypeScript (append-only event log, searchable memory, MCP server) that turns voice memos, notes, and email into opportunity tracking.
- **Private GenAI reference architecture** on a 2U four-GPU node (4× 96 GB, 384 GB per node) spanning appliance stack, orchestration, and governance for ~14M peak monthly tokens; structured a fixed-price 60 to 90 day proof of concept so a CIO could buy without a capital budget cycle.
- **Nine use-case AI portfolio** for an accredited research institution: ~\$12.1M modeled annual value, 17,800 reclaimed hours; translated operational requirements into infrastructure sizing (109 to 343 TB of vector and KV retention) and a five-year lease business case built on private AI and data sovereignty.
- **AI discovery workshops and platform evaluations:** six use cases at an academic medical center (\$2.4M modeled savings); contract intelligence agents and vendor security monitoring for a healthcare payments company (platform vs custom build evaluation, \$290K to \$305K proposal); Copilot Studio vs agent platform evaluation for an office real estate trust (\$6.7M perceived value); signed AI readiness and Copilot Studio statements of work (~\$55K) at an engineering firm; statement of work owner for a \$62.5K manufacturer-funded AI program. Coached engineers on Claude and MCP; monthly tech talk (~50 attendees).

Pre-sales, post-sales, and book of business

- **Moved a global travel company off VMware across three continents:** discovery, hosted proof of concept, licensing strategy, three-site migration plan; NVMe/TCP stretched storage design avoiding ~\$500K in Fibre Channel fabric.
- **Infrastructure and security engagements:** 190+ property hotel chain modernization (signed \$95K order, ~\$210K gross-profit storage follow-on in flight); 18 MW immersion-cooled colocation bill of materials; wireless authentication moved to a cloud service with managed certificates across ~100 HIPAA healthcare sites; identity and access program at a 150,000-employee global agriculture company; 215 TB video archive; airport storage proposal; state university voice trunking proposal.

AI Solutions Architect, Storage & Compute Practice Manager · Business Technology Architects, Alpharetta, GA

Mar 2025 – Apr 2026

- Built an air-gapped AI inference platform for enterprise deployment on GPU clusters, all-flash storage, and 100GbE. One-command deployment took a partner from bare metal to running inference in under an hour instead of days of manual build, with 100% success across partner rollouts.
- Implemented multi-model serving for LLaMA, Mistral, and custom fine-tunes using vLLM, quantization, tensor parallelism, and hot-swap model switching; exposed an OpenAI-compatible API and streaming chat UI supporting LangChain/LlamaIndex retrieval; integrated live GPU metrics with DCGM, Prometheus, and Grafana. Partner enablement through deployment labs and implementation guides.

Enterprise Sales Engineer · Pure Storage

2021 – 2023

Fortune 100 accounts, Southeast. 250% of quota in 2021, named Global Rookie of the Year. 100% uptime for a customer through a hurricane disaster recovery event.

Partner, VP Sales · EMOTO Electric Motorbikes

2023 – 2025

Entrepreneurial operating role; sales up 225% in year one, expanded the product line.

Earlier career: EMC Corporation, Global Presales Operations & Technical Enablement (2010 – 2015): operations for 5,500 presales engineers, trained 1,000+, grew vSpecialists from 30 to 150+. Before that, CTO, solutions consulting, presales, and professional services roles. Annual sales quota achieved every year of career.

Solutions Architect, Converged Systems · Dell Technologies

2019 – 2020

Technical pre-sales for software-defined storage, cloud architecture, and data center consolidation.

Global Presales Director · Reduxio

2015 – 2019

First American employee; led US market entry. 150%+ of quota annually, 90%+ conversion across 50+ proof-of-concept projects.

SELECTED AI ENGINEERING PROJECTS · resume.nixfred.com/projects

Agentic engineering platform

github.com/nixfred

Built a four-host Claude Code platform with MCP integrations and local/cloud model routing (a 12 GB local GPU before any cloud call). Developed persistent agent memory in TypeScript/Bun with SQLite full-text plus vector search, lifecycle hooks that enforce coding standards, secret scanning, and pre-push guards, written operating rules the agents follow, and scheduled recovery of missed session extraction. Orchestration, memory, and code quality are the system, not the model.

AI audit trail and governance

Every agent session is committed to git with its transcript, decisions, and rejected approaches, then indexed for keyword and semantic search, so any answer an agent gave can be traced months later. Paired with least-privilege agent permissions and an evaluation workbench for flagging critical failures, coverage gaps, and behavior drift: the audit trail businesses will expect from agents as from any other system of record.

AI software factory

Created a reusable AI-assisted software delivery workflow using TypeScript/Bun, Python, Cloudflare Workers/Pages, and GitOps: build spec in, live production site out, with repo, deployment, DNS, and content handled end to end. 10+ production sites and 30+ desktop plugins shipped; the same tooling accelerates customer demos and prototypes.

AI Systems Workbench: application evaluation & agent governance

tools.nixfred.com

Fourteen browser-based tools for designing and evaluating AI applications, all processed on device: compare outputs against explicit rubrics, flag critical failures and coverage gaps, investigate behavior drift, decompose workflows, design agents with least-privilege permissions, budget latency, and map the full request path.

Open source contributor

30+ published desktop plugins for Linux (Omarchy, Arch-based) and 120+ public repositories: custom development for hardware control, media, messaging, and system monitoring.

TECHNICAL SKILLS & SOLUTIONS ENGINEERING

Agents & developer platforms: AI agent workflows, Claude Code, MCP, TypeScript/Bun, Python, Cloudflare Workers/Pages, OpenAI-compatible APIs, retrieval-augmented generation, LangChain, LlamaIndex, Copilot Studio, Git, GitOps, open source Linux desktop plugin development.

Inference & observability: vLLM, Ollama, local/GPU inference, multi-model serving, quantization, tensor parallelism, air-gapped AI, GPU sizing from 48 GB and 96 GB cards to 384 GB nodes and clusters, DCGM, Prometheus, Grafana.

Solutions engineering: technical discovery, solution strategy, proof-of-concept evaluations, demos and custom prototypes, executive presentations, competitive positioning, value engineering, cost and return models, proposals and RFPs, manufacturer funding programs, partner enablement.

Linux & infrastructure: Linux (Arch, Ubuntu), Bash, systemd, SSH, Docker, K3s, Tailscale, backup and recovery, infrastructure automation, VMware/VCF, Proxmox, hybrid and private cloud, all-flash NVMe, 100GbE, networking, identity and access management, zero trust.

Education: B.S. Business Administration, Information Systems, Auburn University.