

# SCOTT ROY MURPHY

Principal AI Engineer | Fractional CTO | Head of AI | Agentic Systems Architect

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## PROFESSIONAL SUMMARY

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Principal AI Engineer and Fractional CTO with 28+ years of software engineering experience, specializing in production-grade LLM systems, Agentic AI pipelines, and Generative AI platform development. Proven expertise in multi-model LLM orchestration (Claude, GPT-4, Gemini, DeepSeek), RAG architecture, LangChain/LangGraph workflows, prompt engineering, and AI agent deployment at scale. Drives measurable business outcomes: automated end-to-end consulting pipelines (reducing fulfillment from days to minutes), 30%+ DevOps efficiency gains, and AI-native platforms that eliminate traditional ERP overhead.

## CORE COMPETENCIES

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- ▶ AI Agent Architecture
- ▶ RAG Pipeline Engineering
- ▶ LangChain / LangGraph
- ▶ Generative AI (GenAI)
- ▶ LLMops / MLOps
- ▶ Fractional CTO / AI Strategy
- ▶ Next.js · React · TypeScript
- ▶ Azure · AWS S3 · Vercel
- ▶ LLM Orchestration (Multi-Model)
- ▶ Prompt Engineering & Optimization
- ▶ Agentic Workflow Automation
- ▶ GPT-4 · Claude · Gemini · DeepSeek
- ▶ Vector Embeddings & Semantic Search
- ▶ Digital Transformation Leadership
- ▶ PostgreSQL · Prisma · Supabase
- ▶ CI/CD · GitHub Actions · DevOps

## PROFESSIONAL EXPERIENCE

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### Principal AI Engineer & Agentic Systems Architect — Co-Founder

**GhostFoundry-Syndicate / SpookySoftwareSyndicate.com** — Houston, TX (Remote) Jan 2026 – Present

- ▶ Architected and deployed a production multi-model LLM orchestration layer routing workloads across Claude 3.5 Sonnet, GPT-4, Gemini 2.5, and DeepSeek R1 — selecting models dynamically by task complexity, latency, and cost, reducing inference spend by ~35% [VERIFY].
- ▶ Engineered end-to-end RAG (Retrieval-Augmented Generation) pipelines: document ingestion, vector embedding, semantic search, and context-aware AI response generation powering an autonomous AI agent platform.
- ▶ Designed the 'Dark Factory' — an Agentic AI code generation pipeline with gate-controlled intake, automated complexity estimation, ERD/user-flow artifact generation, and human-in-the-loop approval workflows; cut average feature delivery time from days to hours.
- ▶ Built an automated AI consulting pipeline (AI Scope): Stripe payment → LLM intake analysis → Claude 3.5 Sonnet report generation → HTML-to-PDF conversion → automated email delivery — zero human intervention per transaction.
- ▶ Implemented advanced prompt engineering architectures (system prompts, chain-of-thought, few-shot examples, token compression) achieving production-consistent AI outputs across 10+ distinct agent personas.
- ▶ Developed AI-powered digital avatar ecosystem using HeyGen lip-sync technology + ElevenLabs TTS — produced 20+ marketing videos, podcast episodes, and pitch materials at near-zero production cost.
- ▶ Full-stack platform: Next.js 14, React 18, TypeScript, Tailwind CSS, PostgreSQL/Prisma (15+ models), NextAuth.js RBAC, AWS S3, Stripe, Telegram Bot API, and Vercel CI/CD.

Stack: Claude 3.5 Sonnet · GPT-4 · Gemini 2.5 · DeepSeek R1 · RAG · LangChain · Abacus.AI · Next.js 14 · React 18 · TypeScript · PostgreSQL · Prisma · AWS S3 · Stripe · HeyGen · ElevenLabs · Vercel

## Senior Technical Consultant — App Modernization & AI Integration

Perficient, Inc. — Houston, TX (Remote)

Nov 2025 – Present

- ▶ Delivered cloud-native .NET 10 microservices and AI-augmented API modernization for enterprise client Lockton, one of the world's largest insurance brokers.
- ▶ Integrated QuoteCompare AI into enterprise binder workflows, automating document extraction and premium calculation pipelines — eliminating manual processing steps.
- ▶ Architected Azure Redis distributed caching strategy eliminating redundant Salesforce API calls, improving system responsiveness and scalability across the binder management suite.
- ▶ Designed Binder Management API suite using Clean Architecture principles: modular domain layers, repository abstractions, and full M-Files document management integration.

Stack: C# · .NET 10 · Azure · Redis · Salesforce (SOQL/Forza.Net) · M-Files · Clean Architecture · NUnit · Moq

## Senior Software Engineer — Cloud Modernization

Loomis Armored — Houston, TX

Mar 2022 – Mar 2025

- ▶ Led full-stack modernization of Loomis Direct from legacy .NET to .NET Core + React SPA, improving UI responsiveness and long-term maintainability.
- ▶ Drove Azure cloud adoption and optimized CI/CD pipelines via Jenkins and Octopus Deploy, reducing deployment cycle time by 30%.

Stack: C# · .NET Core · React · Azure · SQL Server · Jenkins · Octopus Deploy

## Senior Software Engineer (Contract) — Government Systems

Transcore — Houston, TX

Oct 2019 – Nov 2021

- ▶ Delivered custom modernization solutions for state government systems using Angular, C#, and Azure-hosted SQL databases.
- ▶ Converted multi-threaded legacy data processing into scalable, maintainable modules, improving system reliability and compliance posture.

Stack: C# · ASP.NET · Angular · Azure · MSSQL

## Sr. Software Engineer / Integration Specialist / IT Compliance Liaison

Roquemore — Garland, TX

Jun 2015 – Sep 2019

- ▶ Led multi-API integration project across Equifax, TransUnion, CarFax, RDN, TLO, and Twilio — unifying data flows into a single WPF/MVC application stack.
- ▶ IT Compliance Liaison — instrumental in acquiring SOC-2 Certification: authored company security narrative, developed IT Compliance manual, designed and delivered Web Security training seminars.
- ▶ Added SMS/texting capability via Twilio API and RDN assignment integration, expanding platform capabilities without architectural overhaul.

Stack: C# · WPF · ASP.NET MVC · Angular · SQL Server · SSRS · Twilio · SOC-2

## Senior Software Engineer — ERP & Field Service Platform

Automated Integration — Dallas, TX

2011 – Mar 2015

- ▶ Developed Tablet/Smartphone Field Service Application (RDP) complementing a 16-year-old ERP/Dispatching system, adding mobile capability without legacy disruption.
- ▶ Led overdue Version 10 ERP release (2 years behind on arrival) — shipped on time after joining as lead engineer.
- ▶ Designed 100+ custom Crystal Reports spanning Accounting (AP, AR, Payroll, Bank Reconciliation) and Dispatching (Scheduling, Job Costing, Technician Profitability) modules.

Stack: C# · SQL Server · SSRS · Crystal Reports · WinForms · Mobile/RDP

## CTO / Sr. Software Engineer / R&D Coordinator

MiChoice Technology Systems — Houston, TX

2005 – 2011

- ▶ Built and delivered entire product line for public school district Nutrition Departments: Touch Screen POS, Central Office Data Management, Free & Reduced Application Processing, Parent Portal, and Time Clock/Inventory Management systems.
- ▶ Directed all development and support personnel as CTO; managed full R&D lifecycle from requirements through deployment.

*Stack: VB.NET · C# · MS SQL · Crystal Reports · POS Systems*

## **Sr. Software Engineer / R&D Coordinator**

### **Microcheck Technology Systems — Houston, TX**

*1997 – 2005*

- ▶ Full lifecycle development, deployment, and maintenance of all proprietary software applications including POS, data management, and parent-facing portals.
- ▶ Directed all development and support personnel; coordinated and taught Dealer Training Seminars nationally.

*Stack: VB.NET · C# · SQL Server · POS Firmware · Hardware Integration*

## **EDUCATION & CERTIFICATIONS**

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**University of Houston — Computer Science**

**Professional Scrum with Kanban (PSK I) — Scrum.org**

**Lean Six Sigma Yellow Belt**

*AI-Optimized Resume | Keywords: LLM · RAG · AI Agent · LangChain · GenAI · Fractional CTO · Prompt Engineering · LLMOps · Azure · Vercel · PostgreSQL*