James Mudge

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Senior engineer who builds data-heavy business systems end to end: connectors into other companies' software, document ingestion with on-prem AI, audit trails and access control, and systems that run both on-site and in the cloud. Mostly C# and TypeScript. Technical write-ups for each system are at iamjamesmudge.com/work.

EXPERIENCE

Setton Farms — 2024 to present

Senior Software Engineer on a team of seven, business systems for a food processing operation

- Lead engineer on SMS 2.0, the ERP the company now runs on. Its 17 modules on .NET and React replaced a 20-year-old desktop system, and it deploys with zero downtime.
- Set the front-end and back-end architecture the team builds on: project scaffolding, coding patterns, shared C# and React libraries, and generated API clients that keep both sides in sync.
- Designed the invoice payment pipeline, a state machine that takes each invoice from OCR through three-way matching and approval, then each batch through ACH payment, bank reconciliation and posting to Sage 300. A few hundred invoices a week, millions of dollars a month.
- Rebuilt invoice intake around a Qwen vision-language model I deployed on-prem with vLLM, so scanned invoices are read and filed without any document leaving the building.
- Led our move to AI-assisted development; each developer now ships at least three times as many features and fixes. Built the setup: layered instruction files, role-based agents, commands for triage, releases and review, and permission rules for what agents can read and run.
- Consolidated every app's background jobs onto one platform where leadership can see, audit and stop any job.
- Run releases, review the team's merge requests, and coach teammates on architecture and on working with AI agents.

MudgeTech LLC — 2023 to present

Founder and engineer, building and running software for clients and my own products

- **Catalyst Revenue Partners (since 2026):** built their commission platform. It connects to each customer's HubSpot or Salesforce (OAuth with PKCE, token refresh, rate-limit backoff, incremental sync) and turns deals into payouts through commission rules and approvals, with a full audit trail.
- **Northwest Inventory Services (2023 to 2026):** sole developer of their retail inventory system, in daily use since June 2024. It runs offline on laptops in each store, collects counts from an Android app, and syncs to the cloud with device-generated IDs, atomic batches and a version gate for out-of-date clients. Laptop and cloud run the same server code.
- **PumpkinPatch (my product, since 2026):** software for small businesses that combines their website, customer records, and quotes through invoices on a double-entry ledger. Two businesses run on it, and a third licensed the code and moved it to SQL Server, an easy switch because the design never depended on Postgres.

Freelance: web, design and software jobs for local businesses — 2009 to 2023

PERSONAL SIDE PROJECTS

- **Pool shot trainer (2026):** a camera over my pool table tracks every ball and the cue and shows where a shot will go. Built with AI coding agents around a custom U-Net vision model trained on simulated and labeled real frames.
- **Game Night (2026):** a two-phone Android game app for my wife and me, built in Godot. Its Spelling Bee adds the multiplayer the NYT version lacks: the phones pair over Wi-Fi, build the same puzzle from a shared seed, and compare words and keep score after each round. It replaced our nightly NYT Games routine.

SKILLS

Languages	C#, TypeScript and JavaScript, SQL
AI	AI-first with Claude Code and Codex (agents write the code; I own architecture, review and tests), MCP servers, vLLM
Backend	.NET, ASP.NET Core, EF Core, PostgreSQL, SQL Server, OAuth integrations (HubSpot, Salesforce)
Frontend	React, React Native, TanStack Router and Query
Cloud and ops	Google Cloud Run, Cloud SQL, Docker, GitLab CI
Testing	Testcontainers integration tests, 500+ per project, on concurrency, tenant isolation and money