

SEAN BILGER

AI & Agent Systems Engineer · Full-Stack (.NET / Python) · Technical Lead

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SUMMARY

Software engineer with **10 years** shipping production systems across enterprise .NET/Azure, embedded IoT, and — for the last three — **multi-agent AI**. Founded a software studio where I designed a three-layer agent architecture on the Claude Agent SDK and MCP (a CEO orchestrator directing five department agents) that runs client research, design, outreach, and delivery end to end, producing **146 client site builds**. Equally at home owning backlog and release engineering for an enterprise team as writing the orchestration layer.

TECHNICAL SKILLS

AI & AGENTS	Claude Agent SDK, Anthropic API, Model Context Protocol (MCP), multi-agent orchestration, tool use, RAG, prompt caching, eval & quality gates, LLM cost routing
LANGUAGES	C#, Python, TypeScript / JavaScript, SQL, HTML / CSS
BACKEND & DATA	.NET / ASP.NET, EF Core, Flask, REST APIs, Supabase (Postgres), SQL Server
FRONTEND	React, Next.js, Astro, Blazor Server, Tailwind, Jinja, Xamarin / .NET MAUI
CLOUD & DEVOPS	Azure, Azure DevOps, Jenkins, GitHub Actions, Docker, Railway, CI/CD pipeline design
PRACTICE	Distributed system design, Agile / Scrum, sprint planning, backlog ownership, stakeholder management, technical project lead

EXPERIENCE

Founder & Principal AI Engineer

HogTron Solutions LLC

May 2023 – Present

Bethlehem, PA

- Designed and shipped a **three-layer agent architecture** on the Claude Agent SDK and MCP — a CEO orchestrator directing five department agents (research, creative, marketing, sales, ops) that carries a client from lead enrichment to proposal delivery behind a single human approval gate.
- Built the generation pipeline behind **146 client and prospect site builds**, each headlessly generated and deployed to a Railway-hosted showcase with per-client routing.
- Wrote a deterministic **10-pillar SEO/GEO scoring engine** (Python/Flask) grading a site's visibility in both classic search and AI answer engines; runs as a public self-serve audit, hardened with SSRF guards, locked CORS, rate caps, and response caching.
- Engineered **automated quality gates** — design critique, copy-slop detection, deliverability, link integrity — that revise agent output before a human sees it, reducing review to one approve/reject decision.
- Built the operating platform on Flask + Supabase/Postgres — lead pipeline, audit history, proposal generation, deploy observability — shipped via Docker on Railway. Serving **21 active clients**.

Software Engineer / Technical Project Lead

Inmar Intelligence

Feb 2022 – May 2023

Breinigsville, PA

- Designed and deployed cloud .NET services on Azure supporting distributed retail systems, owning features from design through production release.
- Led Agile delivery for a **team of 8**, owning the backlog from stakeholder intake through release and cutting recurring production incidents **42%**.
- Standardized build and release across **Azure DevOps and Jenkins**, giving the engineering group one repeatable CI/CD path.
- Rebuilt database models and service communication patterns, improving service throughput.

Supply Chain Application Developer / Project Coordinator

Weis Markets

Dec 2020 – Feb 2022

Sunbury, PA

- Built inventory-optimization tooling used daily by warehouse and supply-chain teams, eliminating **100% of manual replenishment processing** — the workflow runs unattended end to end.
- Coordinated supply-chain software projects end to end, aligning warehouse operations stakeholders with the engineering roadmap and shipping in iterative Agile releases.

Embedded Software Engineer

Feb 2019 – Dec 2020

Lutron Electronics

Allentown, PA

- Developed RTOS firmware for time-critical IoT lighting devices where timing and reliability were hard product requirements.
- Owned the GitHub repository and branching strategy across cross-functional embedded teams, and built the CI/CD pipelines that cut build failures and made releases repeatable.
- Drove system-level design decisions on device communication and reliability across the hardware/firmware boundary.

Xamarin / .NET Developer

Sep 2016 – Feb 2019

Computer Aid Inc.

Allentown, PA

- Built cross-platform mobile and web applications with Xamarin, .NET, and AngularJS, backed by SQL Server services.
- Rebuilt the Jenkins CI/CD pipeline, **cutting release cycle time 40%**.
- Modernized legacy applications for performance, stability, and compliance.

Development Intern

Apr 2015 – May 2016

Computer Aid Inc.

Allentown, PA

- Delivered the Safe Transport student-transportation tracking app for Parkland School District, plus supporting .NET services and SQL Server integration.

SELECTED PROJECTS

HogTron Department Agents

Three-layer agentic system: a CEO orchestrator delegating to five domain agents, each invoked over MCP from both a web dashboard and CLI, with 40+ reusable skills as the shared instruction layer.

Claude Agent SDK · MCP · Python

GEO / SEO Auditor — [live at hogtron-solutions.com/free-audit](https://hogtron-solutions.com/free-audit)

Deterministic 10-pillar engine scoring a site's visibility in classic search and AI answer engines. Public, keyless, zero LLM cost per run; hardened against SSRF with locked CORS and rate caps.

Python · Flask · Railway

Autonomous Outreach Engine

Enriches a lead, generates and deploys a real site mockup headlessly, runs four independent quality gates, auto-revises on failure, then stages a personalized draft — send is a deliberate human switch, never the default.

Python · Claude Agent SDK · Supabase · Gmail API

Penny's Pantry

iOS-first budget grocery meal planner with LLM-powered photo and saved-video recipe import via edge functions, backed by a **259-test** suite and a persona harness that walks the shipped app as six different user profiles.

Expo / React Native · TypeScript · Supabase · Deno Edge Functions

FlowState — github.com/sbilger/flowstate

ADHD-aware task engine built as a full-stack .NET showcase: real-time updates over SignalR with background scheduling through Hangfire.

Blazor Server · EF Core · SignalR · Hangfire

CERTIFICATIONS & EDUCATION

Claude Developer & Claude Builder — Anthropic

May 2026

Google AI Certification — Google

May 2026

Kutztown University — B.S. Information Technology, Minor in Business Administration

Kutztown, PA