

Andrew Oakeson

Senior Software Engineer | Applied AI and LLM Agents | C#/.NET, TypeScript

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SUMMARY

Senior Software Engineer with 13+ years building SaaS, APIs, and integrations in C#/.NET and TypeScript. Builds large language model (LLM) features and agent infrastructure, including tool-calling assistants, an MCP server, and coding-agent plugins. Uses AI for architecture, implementation, debugging, and cross-model review, backed by production experience in authentication, cloud systems, and reliability.

TECHNICAL SKILLS

AI applications: OpenAI Chat Completions / Responses APIs, Gemini API, Vercel AI SDK, tool calling, structured outputs, strict JSON Schema / Zod, few-shot grounding, multimodal image editing

Agent context: Open Knowledge Format (OKF), AGENTS.md / CLAUDE.md, task routers, path-scoped rules, knowledge graphs, CI knowledge validation, documentation provenance

AI-assisted delivery: Claude Code, Codex, Cursor, Model Context Protocol (MCP) servers, plugins/hooks/skills, multi-agent orchestration, worktrees, cross-model review, adversarial testing

Backend and data: C#, ASP.NET Core, TypeScript, Python, Node.js, SQL Server, PostgreSQL / Supabase, Entity Framework Core, REST APIs, GraphQL, Kafka

Frontend and cloud: React, Angular, Next.js, Astro, Azure, AWS, Cloudflare Workers, Docker

Security and testing: OAuth 2.0 / OIDC, PKCE, SAML, Azure AD B2C, Auth0, Key Vault, FHIR / SMART on FHIR, xUnit, Vitest, CI/CD, GitHub Actions

PROFESSIONAL EXPERIENCE

Opeeka, Inc. | Senior Software Engineer

Nov 2023 - Oct 2026 | Remote | Healthcare SaaS

Company context: HIPAA-regulated healthcare SaaS with 2025 SOC 2 Type I/II attestations, HITRUST e1 renewal, and a NIST SP 800-171 assessment. Single-customer load-test baseline: approximately 350,000 member records and 100,000 assessments (March 2025).

- Built Open Knowledge Format (OKF) context for coding agents in Serenity: 100+ concepts, approximately 30 architecture decision records, task routing, AGENTS.md/CLAUDE.md, path-scoped rules, CI metadata/link checks, and human-verification states for AI-authored documentation.
- Delivered production SAML single sign-on and just-in-time Azure AD B2C provisioning since 2024; secured signing keys in Key Vault. Implemented Okta OIDC/PKCE and external record-level authorization through pre-production release promotion.
- Built a GPT-4o questionnaire-assistant prototype with a custom .NET client, approximately 20 domain tools, a six-round execution cap, and Angular streaming over Server-Sent Events (SSE); excluded update/delete tools and supported rule simulation, readiness checks, and role-restricted publishing.
- Authored okf-live and okf-lens, two TypeScript Claude Code plugins that track agent/subagent document reads, expose an MCP task-route tool, and check secrets, protected health information (PHI) logging, and architecture violations; tested bypass attempts in headless and interactive sessions.
- Orchestrated approximately 40 parallel agents with read-only source access and separate output ownership to document legacy P-CIS/LISN, including 36 API controllers and 185 tables; generated approximately 680 concepts and 2,400 relationships.
- Integrated GPT-4o into a .NET support-console prototype for natural-language-to-Kusto Query Language (KQL), grounding prompts in telemetry schemas and examples and placing generated queries in an editor for human review.
- Led design and implementation of Serenity's .NET FHIR APIs and React/TypeScript portals; guided an external engineering team on framework selection and API boundaries. Implemented tenant-scoped SMART authorization, token exchange, and conformance tests; platform in development, frontend using synthetic data.
- Fixed SQL JSON double-serialization causing 20+ second assessment-loading delays and shipped a hotfix across four release lines. Resolved infinite-loading behavior with an external-service timeout and non-blocking client authorization flow.

BENlabs | Senior Software Engineer - Lead

Apr 2023 - Oct 2023 | Remote

- Built Angular/React/Vue browser-extension features and .NET services; implemented JWT authentication for AI-service integration and collaborated with machine learning and AI teams.

Filevine | Senior Software Engineer

Sep 2020 - Dec 2022 | Remote

- Owned the Import service and built .NET Core APIs for a legal software platform, monitoring workloads in AWS/Docker environments; led Angular localization, built Angular/Svelte interfaces, and mentored developers.

Young Living | Senior Software Engineer

Nov 2019 - Sep 2020 | Remote

- Built seven Kotlin/Kafka microservices for fulfillment and third-party integrations from design through production; added Splunk monitoring and coordinated offshore developers.

Alpine Testing Solutions | Senior Software Architect and Engineer

May 2017 - Nov 2019 | Remote

- Redesigned an Angular/.NET Core/SQL certification platform; migrated a WCF API to GraphQL and guided architecture and junior developers.

Earlier Experience

Jeunesse Global | Senior Software Engineer | Apr 2016 - May 2017

Megaplex Theatres | Senior Software Engineer | May 2015 - Apr 2016

Virtuoso Branding | Software Engineer | Mar 2014 - May 2015

Gold Point Systems | Software Developer | Jan 2013 - Mar 2014

SELECTED AI ENGINEERING PROJECTS

AI Operations Agent | Claude Code, MCP, Python | 2026 - Present

- Designed and operate an always-on Claude Code agent used daily by business partners and two outside clients, a real-estate brokerage and a cabin-rental company, for email/guest-message drafting, pricing briefs, research, and web development.
- Isolated resources across 20+ Discord channels; require human approval for outbound messages and lock sender addresses per channel in code with Google OAuth identity checks.
- Run nearly 40 scheduled jobs with persistent memory and lifecycle hooks; previously self-hosted OpenClaw and Hermes. Directed autonomous AI development of hsrduckcreek.com, where clients request site updates through chat.
- **Autonomous Content Agent | Sep 2026 - Present:** Built a scheduled headless Claude Code/Supabase agent for research, writing, quality-validator self-scoring, and translation into five languages with parallel subagents; publishes one sourced article daily to a production hospitality site, with 40+ posts.
- **Janae | AI assistant MVP | 2026:** Owned AI-assisted Next.js/Vercel AI SDK development: 40 Zod-typed tools, streamed execution, an eight-step cap, structured outputs, idempotent writes, and PostgreSQL row-level security.
- **Duck Creek Village Inn | Booking platform | 2026:** Built Astro/TypeScript integrations for two booking providers; added availability/pricing validation, Cloudflare caching, and shared UDOT API-quota controls.
- **Mama Cabins | Natural-language search | 2025 - 2026:** Hardened an existing GPT-4o mini cabin-search parser with deterministic date handling, field coercion, amenity allowlists, and regex fallback to turn requests into property-search filters.
- **PixStay | Multimodal photo editing | 2025:** Extended a Lovable scaffold with Gemini image analysis, JSON-mode prompt rewriting, and multi-image editing via Supabase Edge Functions; integrated authenticated HD-export jobs with credit checks.
- **Elite Home Selling | Property search | 2026:** Built deterministic parsing with OpenAI Responses API strict JSON Schema, location/numeric validation, selective model fallback, timeouts, and caching.
- **TrackingTime | MCP integration | 2026:** Built seven TypeScript/Zod tools for project/task/time-entry workflows, isolated credentials in encrypted storage, and authored a Codex skill to check overlapping entries.

EDUCATION

Bachelor of Science in Computer Science | Weber State University