James Littlefield

Senior Software Engineer | Applied AI & AI Enablement

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Professional Summary

Software engineer with 8+ years building production applications, now driving AI adoption at a startup: partnering with the CEO and the Customer Success and Growth leaders to turn everyday workflows into Claude skills, connectors, and tools that nontechnical staff use on their own, backed by documentation and training. Builds Claude-powered applications with the Anthropic SDK (tool calling, cited retrieval, MCP servers, human-in-the-loop confirmation) and does all coding in Claude Code. Strong full stack foundation: Node.js and Python APIs, third-party integrations, SQL on PostgreSQL and IBM DB2, and AWS deployments, including 4+ years on enterprise IBM applications.

Technical Skills

Building with Claude:

Anthropic SDK, Claude Opus, Sonnet, and Haiku, tool calling, RAG (pgvector, Voyage embeddings), MCP servers, vision and structured output, LLM evals, guardrails, human-in-the-loop

AI Enablement & Developing with Claude:

Claude Skills, Claude connectors (Microsoft 365, SharePoint, Atlassian, Zoho), Claude Design, prompt engineering, documentation and training, Claude Code, agentic coding

Backend & APIs:

Node.js, Express.js, Python, FastAPI, Django, SQLAlchemy, REST APIs, GraphQL, Server-Sent Events, third-party integrations (SendGrid, OAuth providers)

Databases & SQL:

SQL, PostgreSQL (pgvector, row-level security), IBM DB2, MongoDB, Cloudant DB

Frontend:

Vue 3, TypeScript, JavaScript (ES6+), Pinia, Vite, PrimeVue, Vuetify, Tailwind CSS, Nuxt.js, React, D3.js

Cloud, DevOps & Analytics:

AWS (ECS Fargate, ECR, Route 53, Secrets Manager, CloudWatch), Docker, CI/CD, GitHub Actions, Jest, Vitest, Playwright, Google Tag Manager, LinkedIn Insight Tag

Professional Experience

Senior Software Engineer (LLM Platform)

Surface Design Solutions | January 2026 - Present

AI Adoption

- Drove company-wide AI adoption as a founding-team engineer (employee #5), partnering with the CEO, Director of Customer Success, and Director of Growth to find workflows where Claude could save time and turning them into tools nontechnical staff use without engineering help
- Built a company-wide Claude Skill, scoped with those three leaders, that packages company history, personnel, brand palette, and PDF, Word, and PowerPoint templates: staff write the content and the skill places it into the right template, politely correcting inaccurate company facts to protect company integrity
- Partnered with the Director of Customer Success to roll out Claude's Atlassian and Microsoft 365 connectors, so nontechnical staff create Jira tasks for the dev team and view and create the Confluence docs used in development planning
- Enabled SharePoint access through Claude so staff can pull and cross-reference other departments' documentation during cross-department meetings, and enabled Claude's Zoho connector for the sales portal
- Wrote documentation and ran training sessions for the skill and connectors so staff could use them independently
- Worked with the Director of Growth on brand consistency across all social media, using Claude Design for the company color palette, UI/UX mockups, and every LinkedIn marketing asset over the past year, and set up Google Tag Manager, the LinkedIn Insight Tag, and LinkedIn page analytics to track website and page traffic
- Does all coding in Claude Code through a specification-first agentic workflow, with custom Claude Skills for brainstorming, design, and cross-reference review

Platform Engineering

- Owned UI/UX and frontend for a ground-up platform rebuild in Vue 3, TypeScript, Vite, Pinia, and PrimeVue, including the no-code ML workflow to label surface scans, train classification, regression, and Gaussian process models, and run and monitor predictions
- Established the frontend architecture, reusable component patterns, routing, and engineering standards the product is built on, with Pinia for state management and Vitest for unit testing
- Shipped multi-tenant organizations, a custom role and permission builder, SSO, API keys, and real-time job progress over server-sent events, integrating with Python and Django REST APIs
- Wrote a custom D3 charting library for model evaluation (classification accuracy, cross-validation, and PCA latent-space visualizations) and built the design system (light and dark themes, WCAG 2.2 AA baseline)
- Worked directly with PhD co-founders to turn research capabilities into production software, designing interfaces that work for both PhD researchers and nontechnical commercial users

Claude Skills | Claude Connectors | Microsoft 365 | SharePoint | Atlassian | Zoho | Claude Design | Claude Code | Google Tag Manager | Vue 3 | TypeScript | Python | Django | REST APIs | D3.js | Vitest

Senior Full Stack Engineer

IBM/KollaCode | July 2021 - October 2025 (promoted from Full Stack Engineer, September 2023)

- Integrated an AI-based government entity determination tool into a legacy compliance application, calling AI APIs for automated results and expanding the UI for human oversight and overrides, replacing a fully manual process and saving hundreds of support hours
- Served as project and application lead for CTEBA (IBM global event management application), owning the Sales module and building CRON jobs with the SendGrid API for reminder emails with encrypted tracking links to monitor open rates and acknowledgment statuses
- Lead developer on the IBM Partner Plus Awards application, leading frontend architecture in Vue 3, Vuetify 3, Vite, and Nuxt.js, writing Express.js REST APIs, and delivering internationalization for 11 languages
- Wrote complex SQL against IBM DB2 and Cloudant DB queries (views, indexes, search) to back Express.js APIs, and optimized NoSQL queries and indexing to cut data retrieval time by 40%
- Met IBM security and data privacy policies with PII encryption, OpenID Connect (OIDC) authentication, OAuth login with Google and other providers, and full audit logging
- Spearheaded migration of multiple Vue applications (Vue 2 to Vue 3, Vuetify 2 to Vuetify 3, Vue CLI to Vite), improving architecture, performance, and user experience

AI APIs | Vue 3 | Nuxt.js | TypeScript | Node.js | Express.js | REST APIs | SendGrid | SQL | IBM DB2 | Cloudant DB | OAuth | OIDC | CI/CD | IBM Cloud | UI/UX

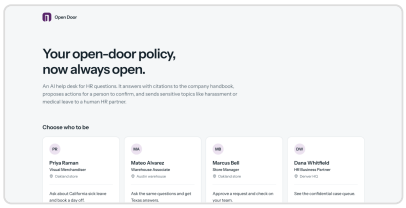
Software Engineer

80 Acres Farms | May 2018 - July 2021

- Built an end-to-end MRP system for indoor vertical farming operations using Vue.js, Node.js, Elixir, GraphQL, and PostgreSQL to manage the crop lifecycle from seeding to delivery
- Solely responsible for designing and implementing an industry-standard packaging barcode system, and built Vue.js and Node.js applications for factory conveyor stations with QR code scanning for packaging workers to weigh, track, and prepare products
- Migrated the Vuetify UI library from v1.5 to v2.3 across a monolithic legacy application, and mentored junior developers while the company grew from Series A to Series B funding

Vue.js 2 | Node.js | Express.js | GraphQL | PostgreSQL | Elixir | Vuetify | UI/UX | Responsive Design | Jest

Key Projects

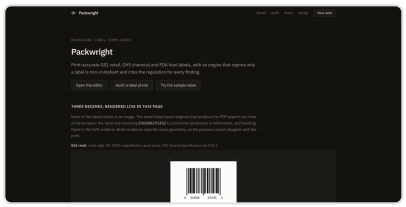


Open Door

2026 | View Project

HR policy answers often depend on who is asking. Open Door is an AI help desk that answers employees in plain language, cited to the exact handbook passage, with retrieval filtered to each asker's state and employment type. Claude looks up time-off balances and proposes requests, approvals, and cancellations through tool calls, but a person confirms before anything is written: proposals expire after 15 minutes and run exactly once. A screening model routes crisis and sensitive messages to people instead of the model, and answers stream with a "show your work" view of tool calls and sources.

Claude Opus 5.5 | Claude Haiku 5.5 | Anthropic SDK | Tool Calling | RAG | pgvector | Voyage Embeddings | LLM Evals | Python | FastAPI | PostgreSQL | React 19 | AWS ECS on EC2



Packwright

2026 | View Project

Packaging labels must meet GS1 retail barcode, GHS chemical hazard, and US FDA food labeling rules. Packwright checks labels against 36 rules and cites the regulation behind every finding, highlighting the part of the label it refers to. Claude vision reads photos of existing chemical labels into typed fields for a person to confirm, while a deterministic rule engine does the judging. An MCP server exposes 4 read-only tools so AI assistants can check labels directly using the same rules.

Claude Opus 5.5 (vision) | Structured Output | Anthropic SDK | MCP Server | MCP TypeScript SDK | Vue 3 | TypeScript | Node.js | Express 5 | MongoDB | Playwright | AWS ECS on EC2