

BRE THORUP

AI ENGINEER · AGENTIC WORKFLOWS & APPLIED AI SYSTEMS

Discovery — Architecture — Deployment

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SUMMARY

Hands-on AI engineer and systems builder who loves turning a fuzzy “could we...?” into something surprisingly useful, reliable, and real.

I build AI agents, automations, RAG and knowledge systems, internal tools, and custom software around real business problems. I especially enjoy the discovery part: stepping into how a team works, finding the friction, exploring what’s possible, and figuring out the right system to build.

My work spans agentic workflows, retrieval, APIs, automation, full-stack applications, data pipelines, voice AI, and self-hosted infrastructure. I learn aggressively and daily, and tend to do my best work where the problem isn’t fully defined yet and there’s room to experiment, collaborate, and make something better.

WHAT I BUILD

AI AGENTS & KNOWLEDGE SYSTEMS

Agents and assistants that work with company documents and data — answering questions, researching, using tools, taking actions, and involving a human when needed. RAG, private knowledge bases, multi-tenant systems, vector search, context design, tool permissions, and agent orchestration.

AUTOMATIONS & CONNECTED WORKFLOWS

Multi-step n8n and API-driven systems that connect tools that don’t normally talk to each other: data processing, syncing, routing, approvals, alerts, research, monitoring, and the background tasks that quietly keep work moving.

CUSTOM SOFTWARE & INTERNAL TOOLS

Dashboards, admin panels, client portals, and purpose-built interfaces that make complicated systems easier for people to use — designed around how people actually work, including mobile-first systems for teams in the field.

VOICE AI

Real-time conversational systems combining speech-to-text, LLMs, and text-to-speech. Bilingual, self-hosted voice infrastructure with provider-flexible architecture, so models and services can change without rebuilding the surrounding system.

DATA & RETRIEVAL PIPELINES

Cleaning, organizing, mapping, deduplicating, ingesting, embedding, retrieving, and migrating messy real-world data so whatever gets built on top of it has a solid foundation.

EXPERIENCE

AI Solutions Architect & Founder

2024 — PRESENT

Local AI, LLC · Ocean Isle Beach, NC | Remote

- Lead projects from discovery through deployment across local business, healthcare development, retail, real estate, hospitality, and professional services — working directly with decision-makers and operational teams to turn loosely defined needs into working systems.
- Designed and built CoactionConnect, a multi-tenant AI and knowledge platform with organization-scoped authentication, isolated tenant RAG/vector stores, digital asset management, automated request routing, AI-assisted research, and social-listening workflows, letting an internationally based hospital development team connect with their teams and physician stakeholders and manage projects better.
- Built Hive, a visual environment for composing agentic workflows using typed execution context, model adapters, tools, credential permissions, human gates, and structured runtime plans, with automated testing across core execution contracts.
- Built self-hosted bilingual voice AI receptionists on a real-time STT → LLM → TTS pipeline (Pipecat, Deepgram, Claude, Cartesia) with provider-agnostic components designed for easy model and vendor changes.
- Engineered a retail commerce transformation that turned 17,000+ flat POS records into ~7,500 structured e-commerce products and 12,991 linked variants, including data normalization, schema mapping, automation, merchandising, staff tooling, and ongoing synchronization.
- Built coordinated n8n workflows for catalog, inventory, and product synchronization, replacing a paid monthly SaaS and eliminating recurring manual double-entry.
- Designed a mobile-first shop-management application around how nontechnical retail staff actually work: inventory updates, product creation, variant management, images, barcode scanning, and website updates.
- Operate and troubleshoot production infrastructure across Linux/VPS, Docker, Postgres, Qdrant, Cloudflare, MinIO/S3, Tailscale, Caddy, self-hosted n8n, and MCP-connected systems.
- Built a library of reusable Claude Code skills for repeatable development, research, deployment, and QA workflows, and continuously evaluate emerging models, frameworks, and tools for where they meaningfully improve a system.
- Serve as the bridge between technical systems and nontechnical stakeholders, translating evolving ideas and business requirements into architecture people can understand and use.

Digital Solutions & Creative Technology Lead

2021 — 2025

Lincoln Partners · Phoenix, AZ | Remote

- Digital liaison between family-office clients and distributed project teams, translating complex operational, property, investment, and project data into dashboards, visualizations, digital tools, and clear stakeholder communication that made remote decision-making possible.
- Developed an AI-assisted floor-plan workflow converting blueprint images and napkin sketches into polished floor plans for prospective-tenant marketing.
- Worked across design, technology, operations, client communication, and product thinking as project needs evolved.
- Retained as an ongoing independent technology and digital-systems partner after leaving the full-time role.

Digital Operations & Modernization

2017 — 2021

Coastal Tourism & Hospitality Group · Ocean Isle Beach, NC

- Helped modernize a seasonal tourism and hospitality complex from cash drawers and handwritten processes to integrated point-of-sale and digital systems.
- Built technology around the realities of an operating small business — seasonal teams, busy customer-facing environments, changing needs, and people who need tools to be straightforward and useful.
- Built the modern web presence with a custom CMS for owner-editable content via mobile PWA, live-data functionality, SEO, custom operational tooling, and interactive customer experiences including a multi-user mobile mini-golf scorecard.

TECHNICAL TOOLBOX

AI & AGENTS

Claude · GPT · Gemini · Ollama · RAG · MCP · Qdrant · agent orchestration · context engineering · prompt and system design · human-in-the-loop workflows

ENGINEERING

Python · TypeScript · SQL · Bash · React · Next.js · Node.js · REST APIs · OAuth · webhooks

AUTOMATION & DATA

n8n · Postgres · API integrations · event-driven workflows · data pipelines · semantic and vector search · Shopify/POS integrations · Airtable

INFRASTRUCTURE & VOICE

Docker · Linux/VPS · Cloudflare · MinIO/S3 · Tailscale · Caddy · Sentry · Pipecat · Deepgram · Cartesia

EDUCATION & CONTINUOUS LEARNING

Claude Partner Network — Partner Organization

2026

Google UX Design Certificate	2025
CalArts Graphic Design Certificate	2023
University of Utah – Biology coursework	2013

Bre currently resides in Ocean Isle Beach, NC but is looking for her next move... could Wilmington be it?!