Donald Cox

AI Systems Architect and Engineer

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I design and build production AI automation that businesses run on every day. The model reads and code decides, and each release passes gates written before the run. Before this work I spent six years in law enforcement and earned an FAA commercial pilot certificate and instrument rating, so procedure and failure handling come first.

42	17	~350	~$0.15
live automations, about 1,200 server runs a day	wrong boxes stopped in 12 weeks, a measured floor	staff hours a year returned, estimated	model spend per checked order, at list rates

Experience

Technology and Automation Lead, precision manufacturer 2025 to present

Run the company's technology and report directly to the owner.

- Architected 42 live automations (30 on owned hardware, 12 in the cloud) and five production systems, integrated through a self-hosted workflow engine with explicit webhook contracts. Avoids about $9,000 a year in hosted platform cost (modeled from a list price).
- Shipping verification: two camera stations check about 40 orders a working day. A vision model reads and a verdict engine decides, using schema-checked output, 9 hold conditions and photo evidence on each order. About 9 seconds a verify on the current build and about $0.15 an order.
- Release process: gates written before each run, prompt candidates replayed side by side against the live prompt, engine changes replayed against up to 2,830 stored decisions, and an A/A test of the rig itself. Rejected a prompt that fixed its target fault because a gate caught new false stops.
- Production ledger 2.0: brought an untracked stock rack into a part-level system. Its assistant can plan any floor action but can't commit one, because the server enforces a person's Yes. A 13-case assistant eval gates each deploy. The 2.0 suite has 487 passing tests, and shadow mode matched 78 of 78 real button presses on the floor.
- Dock intake: moved pallet receiving from 3 people to 1 on a phone, by my count. Vision reads labels, and paperwork, side count and close-up count must agree before anything books.
- Traced a shelf surplus every system called correct to a proven wrong-lot shipment (90 in, 46 out, 44 left against a book figure of 42), then built the check that closes the gap.
- Built a read-only operations watcher, inventory sync with reorder routing, and routine automations returning about 350 staff hours a year (estimated).
- Started on the shop floor and took over the company's technology within months.

Founder, Adapt Automations LLC April 2026 to present

- AI automation, websites and apps for paying clients. Built Lead Hunter, a pipeline from business scan to CRM to personalized preview, with 6,623 businesses in its database, with outreach blocked on the server until a person approves.
- Built Nico, a live LLM chatbot scoped to site content, with a red-team suite rerun on each prompt, knowledge or model change.

Skills

AI systems: Claude API, LLM systems, structured outputs, vision pipelines, evals, prompt injection testing, MCP, agents. **Automation and infrastructure:** n8n, JavaScript and Python services, Docker, PostgreSQL, Linux, Cloudflare, REST APIs and webhook integration. **How I build:** I direct Claude Code agents, with tests, independent reviews and rehearsed rollback. **In progress:** AWS Cloud Practitioner.

Certifications

AWS Agentic AI Demonstrated. Hugging Face Agents Course, Certificate of Excellence. Anthropic Academy: nine courses, including Claude with the Anthropic API and MCP Advanced Topics. n8n Foundations program.

FAA: Commercial Pilot, Airplane Single and Multi-Engine Land, Instrument Rating (2025).

Earlier career and education

FAA flight training (2023 to 2025). Patrol Deputy and Special Response Team, Georgia sheriff's office (2020 to 2023), recognized by the Sheriff for lifesaving efforts. Patrol Officer, Georgia police department (2017 to 2020). County elections clerk and GIS mapping (2011 to 2017). B.S., Criminal Justice (2017).