

EDWARD KY GRAY

Security Solutions Engineer | Enterprise Physical Security | AI-Built Tools & Automation

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linkedin.com/in/kygray | ky-gray-portfolio.vercel.app (live, testable projects)



PROFESSIONAL SUMMARY

Enterprise physical-security Solutions Engineer with 10+ years of customer-facing engineering across video surveillance/VMS, access control, intrusion, networking, and cloud-connected platforms. Leads technical discovery, site assessments, demonstrations, POCs, solution architecture, BOM development, RFP/SOW support, and technical validation. Uses AI tools including Claude, ChatGPT, and Gemini to design and ship working software for field, sales, and contractor workflows, with seven live projects that recruiters and hiring teams can test at ky-gray-portfolio.vercel.app.

CORE QUALIFICATIONS

Enterprise security system design • Video surveillance / VMS • Access control & intrusion • SaaS / cloud platforms • Multi-vendor integrations • LAN/WAN and TCP/IP • Site assessments and implementation scoping • Customer demonstrations and POCs • RFP/RFI, SOW and BOM support • AI-assisted software development • LLM integration (Claude API) • Workflow automation • Technical documentation and training • Cross-functional stakeholder communication

PROFESSIONAL EXPERIENCE

Independent AI SaaS Product Builder | Self-employed | Hawthorne, CA

Feb 2025 - Present

- **NightAgent:** Built a multi-agent ElevenLabs voice system for after-hours security service: emergency triage, ticket creation, billing and sales specialist handoffs, and a follow-up call that closes, reopens, or escalates the ticket. Priority rules live in code, so the model can raise a ticket's priority but never downgrade an emergency. A public Evaluation Lab runs 21 regression tests 3 times each against the live agents, including five prompt-injection tests, plus 24 real-audio voice-test calls and a log of 14 fixes. Also benchmarked Deepgram and ElevenLabs speech-to-text on security trade terms (Jargon Bench): correct terms rose from 62.1% to 89.7% (Deepgram) and from 79.3% to 95.4% (ElevenLabs) with keyterm boosting. [Live demo](#) | [Evaluation Lab](#) | [Code](#)
- **PicTalk:** Built an offline-first mobile app for site walks: each photo paired with a voice note and Deepgram transcript, synced to Firebase when signal returns. Uses the Claude API to describe photos and draft a reviewed job summary, and its Piccolo pane drafts a work order, parts list, and quote with guardrails in code (sources on every line, unverified part numbers flagged), team roles, and learning from past finals. An offline simulator caught 3 problems, all fixed. [Live app](#) | [Code](#)
- **Bluey:** Built an AI companion for people who don't think of themselves as AI users. A structured "brain" step decides before each reply whether to act, ask one question, or act and teach a better way, returned as strict JSON on the OpenAI API. Tested with a Brain Lab regression suite (39 release-gate tests on the beta branch). [Live alpha](#) | [Code](#)
- **Ask Ky:** Deployed a grounded AI assistant on the Claude API that answers recruiter questions from a curated knowledge base, shows the sources it used, and maps job descriptions to verified experience.
- **PropertyIQ:** Built a stand-alone AI analyst and lending workbench for real estate on one machine: a local Qwen3 model on Ollama, PostgreSQL, FastAPI, and Next.js, with no cloud AI service. Code calculates NOI, DSCR, LTV, and covenant tests for 55 synthetic properties and 46 loans, reads rent rolls and T-12s with local OCR, and flags underwriting risks; the model only explains verified figures traced to source records. Remote AI hosts are refused in code; 279 tests. [Case study](#) | [Code](#)
- Used GitHub, Vercel, Firebase, Supabase/Postgres, SQL, and Twilio to manage releases, configuration, security rules, debugging, and integrations.

Acre Security | Field Sales Engineer

Nov 2024 - Jan 2026

- Led pre-sales discovery, POCs, system design, technical validation, and demonstrations for enterprise, education, government, and commercial access-control opportunities.
- Designed scalable Mercury-based architectures covering controllers, downstream hardware, OSDP/Wiegand readers, power, network topology, licensing, and expansion planning.
- Converted site walks and infrastructure assessments into deployment strategies, BOMs, implementation assumptions, and technically accurate recommendations.
- Partnered with Account Executives and channel partners on technical scoping, RFP/SOW inputs, licensing models, integrations, and customer sign-off requirements.
- Presented architecture, credential, integration, redundancy, and security workflows to technical and executive stakeholders.
- Supported cloud-security and InfoSec reviews covering TLS, encryption, key management, logging, retention, and platform security posture.

- Created architecture diagrams and technical documentation that reduced deployment risk and supported customer evaluations.

Interface Security Systems | Security Solutions Engineer

Nov 2019 - Jan 2024

- Advised Security Account Executives through discovery, solution design, estimation, proposal development, material selection, and customer presentations.
- Delivered tailored demonstrations across CCTV/VMS platforms, aligning video capabilities and operational workflows to customer requirements.
- Helped secure one of the company's largest proof-of-concept clients through hands-on training, technical validation, and customer enablement.
- Developed technical documentation, training materials, and SOPs that improved consistency across sales, operations, and customer teams.
- Improved design accuracy and deployment readiness by validating scope and material requirements before implementation, reducing rework and return site visits.

DTiQ | Western Regional Sales Engineer

Feb 2013 - Oct 2019

- Delivered regional pre- and post-sales engineering, business analysis, bid support, demonstrations, and technical solution design.
- Supported national and VIP pilot accounts from technical evaluation through deployment, helping drive adoption and customer satisfaction.
- Partnered with installation management to validate equipment, parts, labor, and deployment assumptions for technically sound, cost-effective proposals.
- Built customer and internal training programs, technical documentation, and SOPs to improve solution understanding and field execution.

DTT Surveillance (now DTiQ) | Product Support and POS Analyst

Apr 2010 - Feb 2013

- Built and validated deployment software supporting a nationwide rollout of 30,000+ DVR systems.
- Created automation tools that cut post-installation and support effort by more than 15 minutes per site, saving hundreds of labor hours annually.
- Designed a test lab with 30+ cameras, 20+ DVR systems, audio, I/O, and POS integrations for solution validation and technical training.
- Trained sales teams on POS/DVR hardware, integrations, and operation; built a mobile POS and computer lab for hands-on enablement.

SELECTED TECHNOLOGIES

Video / VMS: Axis, Hanwha, OpenEye, Milestone, Avigilon, Verkada, Eagle Eye, Meraki, Bosch, i-PRO, Pelco, FLIR

Access control: Mercury MP-series, Acre aAC / Feenics, RS2 Access It!, DNA Fusion / Open Options, Premisys, Vanderbilt SMS

Intrusion / intercom: Bosch, DMP, DSC, Honeywell / Resideo; Zenitel, Axis, Aiphone, Verkada

Cloud / identity / APIs: AWS, Azure / Entra ID, LDAP, Okta, SSO, RBAC, REST APIs, TLS 1.2/1.3

AI and app development: Claude and Claude API, ChatGPT, Gemini, React, Next.js, Vite, Firebase (Auth, Firestore, Storage, Hosting), Supabase/Postgres, SQL, Twilio, Deepgram, GitHub, Vercel, PWA / offline-first design

TECHNICAL ARCHITECTURE

Field / network: LAN/WAN, TCP/IP, segmentation, controller-reader topology, power, cabling, licensing, storage, and deployment planning.

Access: Mercury MP1502, MP2500, MP1501, MR52, MR16IN/OUT; OSDP Secure Channel, Wiegand, wireless locks and gateways.

Video: Camera and VMS selection, NVR/archiver sizing, retention, storage, licensing, PoE, and uplink considerations.

Identity / security: REST APIs, SSO, Azure / Entra ID, LDAP, Okta, RBAC, encryption, TLS, key management, logging, and security questionnaires.

TECHNICAL DELIVERABLES

Discovery workshops • Site assessments • Demos and POCs • Architecture diagrams • BOMs • RFP/RFI responses • SOW inputs • Licensing and deployment assumptions • Executive presentations • Customer training • Technical documentation