

WILLIAM JAMES

AI TECHNICAL LEAD | SYSTEMS ARCHITECT | AI INFRASTRUCTURE ENGINEER

Charlotte, North Carolina (Local) | bcbctechtools@bchicbcow.com | bchicbcow.com

PROFESSIONAL SUMMARY

Charlotte-area systems architect and technical leader with 30+ years of IT experience spanning Linux, networking, programming, hosting, security, production operations, and technical business ownership. Hands-on experience building Python-based LLM integrations, model-agnostic API gateways, multi-agent workflows, persistent project context, runtime health checks, and secure local/colocated services. Founder/operator background combines solution architecture, implementation, stakeholder communication, troubleshooting, documentation, and long-term platform ownership.

AI, ARCHITECTURE & LEADERSHIP STRENGTHS

CAPABILITY	VERIFIED EXPERIENCE
Generative AI & LLM Integration	OpenAI-compatible APIs; model/provider routing; prompt and workflow design; health, status, and failure-state visibility
Python & Automation	Python; Bash/shell; PowerShell; Perl; REST/API integration; browser utilities; systemd services; operational tooling
Agentic Workflows	multi-agent orchestration; tool/action allowlisting; agent handoffs; runtime identity checks; persistent context; decision-state capture
Solution Architecture	secure API integration; service boundaries; reverse proxies; containers; deployment, rollback, backup, observability, and recovery
Linux & Infrastructure	Debian/Linux; Proxmox VE; LXC; NGINX; TLS; SSH; DNS; routing; firewalls; OPNsense/pfSense; colocated infrastructure
Security & Governance	least-exposure design; loopback/private administration; access controls; evidence-based validation; audit trails; explicit unknown/error states
Technical Leadership	founder/operator leadership; platform ownership; product design; user and partner communication; technical documentation; long-term stewardship

SELECTED AI & INFRASTRUCTURE WORK

- BCBC AI Control Plane (ACP):** Developed a safe browser-to-Python administration contract for local AI operations using allowlisted endpoints, loopback-only backend exposure, runtime-verified agent identity, structured status reporting, accurate error classification, systemd persistence, and rollback-first change control.
- Model-agnostic AI gateway integration:** Integrated multiple LLM/provider endpoints into local development workflows with API routing, provider configuration, authentication/key handling, health checks, response validation, and fault isolation across client, gateway, network, and model layers.
- Persistent AI context and agent handoff architecture:** Designed BES/PAIG concepts and working procedures that preserve decisions, tradeoffs, project state, and the reasoning behind technical choices so work can transfer between agents without re-proving settled facts.
- Python AI workflow tooling:** Built lightweight Python/browser/systemd tools for file-to-agent transfer, controlled agent launch/resume workflows, status inspection, and operational automation around LLM-assisted engineering work.
- Colocated Linux platform:** Deployed and operates a 1U Proxmox server, Linux containers, NGINX-hosted workloads, TLS, routing/firewall boundaries, publishing, backups, verification, and recovery procedures.

PRODUCTION PLATFORM & TECHNICAL LEADERSHIP

HeliFreak.com - Founder / Operator / Systems Administrator | Approximately 16 years; acquired in 2015

- **End-to-end platform ownership:** Built and operated the Linux-hosted technical community, including server administration, forum software, programming, upgrades, backups, reliability, security, user administration, and daily production operations.
- **Growth and stakeholder leadership:** Combined architecture, hands-on engineering, community leadership, customer support, and business ownership while translating user and operational needs into platform improvements through sustained growth and acquisition.

FreakTab.com - Founder / Administrator / Programmer / Infrastructure Operator

- **Collaborative delivery:** Co-built and operated the platform with hands-on programming, Linux hosting, server administration, maintenance, troubleshooting, partner collaboration, and user-facing technical support.

FlightPowerUSA - Former Owner

- **Technical business operations:** Led technical-product, customer-support, operational, and hands-on problem-solving work in an owner/operator role.

EDUCATION & CREDENTIALS

Associate of Applied Science (AAS), Programming - Keiser College

Earned credentials: Microsoft Certified Systems Engineer (MCSE); Novell Certified NetWare Engineer (CNE); Cisco Certified Network Associate (CCNA); CompTIA A+, Network+, and i-Net+

FAA Commercial Pilot Certificate - earned credential; current flight currency not implied

OPERATING APPROACH

Evidence-driven engineering: establish the real failure domain, change one variable at a time, preserve rollback, verify runtime state rather than trusting labels, document the result, and move forward once the bridge is crossed.