Raleigh, NC · Relocating to NYC
mskeith0193@gmail.com
nexusfang-tech.github.io · github.com/NexusFang-tech · linkedin.com/in/mskeith93

Matthew Keith

Technology Services Manager at a statewide association, building production software, AI features and security tooling while serving as the primary IT contact for about 80 staff. I use AI coding tools where they help and take responsibility for what ships. Background spans bank security operations, MSP client success and formal cybersecurity training. Seeking an AI Security and Frontier Red-Teaming Residency to test how capable models behave when real systems and data are at stake.

TECHNICAL PROFICIENCIES

Languages	Python, Go, PowerShell, SQL, Bash, JavaScript, HTML/CSS
AI	Anthropic API, live-data context for production assistants, prompt-injection evaluation, AI-assisted development
Security	Detection engineering, Sigma, MITRE ATT&CK, posture auditing, EDR, penetration testing
Infrastructure	Azure, Entra ID, Active Directory, Microsoft 365, Microsoft Graph, IIS, Git, SentinelOne

FLAGSHIP APPLICATION

County Connect, Creator and Sole Developer — 2026 – Present · internal, staff-only

`Python · FastAPI · SQLAlchemy · SQLite · Jinja2 · Azure · Entra ID · Microsoft Graph · Anthropic API`

- **Architecture:** Designed and deployed an in-house CRM on a single Azure B2s VM, replacing the legacy Trilix system with no per-seat CRM licensing.
- **System of record:** Holds 4,300+ contacts across all 100 NC counties, including all 587 commissioners. Staff sign in through Entra ID with no separate passwords.
- **Automation:** Added nightly Mailchimp sync for 800+ contacts, Teams notifications, and self-service filters and exports that replace personal tracking spreadsheets.
- **Election Mode:** Processes State Board of Elections filings for about 775 county candidates, matches them to existing contacts and builds post-election add and inactivate lists.
- **Production AI (CoatesBot):** Built an Anthropic API assistant supplied with live county data (officials, districts, population, FEMA status) at request time.
- **Data and security:** Built Connect Explorer with legislative crosswalks and FEMA overlays. Added Entra OAuth2, admin allow-listing, audit logging and geo-redundant backups validated by test restore.
- **AI development oversight:** Reviewed model-written logic before release, catching a proposed patch that would have silently dropped 700+ members from a program group.

PROFESSIONAL EXPERIENCE

Technology Services Manager, NC Association of County Commissioners — Raleigh, NC · May 2025 – Present

Primary helpdesk and IT contact for about 80 users across a hybrid Active Directory and Entra ID environment, working with the Director of Technology Services.

- **Security tooling:** Built an IT Hub for ticketing, posture triage and phishing analysis. Rebuilt password-expiry alerts as an automated Graph service after finding they missed about 105 hybrid accounts.
- **Cost analysis:** Audited tenant licensing with PowerShell and Microsoft Graph, identifying $13,812 in potential annual savings at list pricing ($20,220 with proposed EDR consolidation).
- **Vulnerability and incident response:** Traced a vendor-flagged .NET vulnerability to one certificate tool, moved it to a self-contained build and removed the runtime. Led IT-side coordination to resolve a payment gateway key exposure with a vendor.
- **NCACC Vote (prototype):** Built a phone-based delegate voting system with hash-chained audit logs and configurable thresholds. Passed 35 automated tests and responded in under 25 ms with 100 simulated voters. Demonstrated to stakeholders; not yet used in a live vote.
- **Migration and governance:** Leading the move of shared drives to SharePoint Online, starting with a ~147 GB IT pilot, and reviewing a NIST CSF 2.0-aligned IT policy set.

Customer Success Manager, WingSwept (Managed Service Provider) — Garner, NC · Sep 2022 – Dec 2024

Ran Quarterly Business Reviews covering infrastructure, security posture and lifecycle planning for 110+ client organizations. Managed onboarding and escalations using ConnectWise and Kaseya RMM.

Shift Supervisor and Console Operator, Allied Universal — Raleigh, NC · Jul 2019 – Sep 2022

Supported security operations for 900+ First Citizens Bank branches, its data center and corporate site, supervising 6 to 8 employees per shift.

Console Operator, Universal Protection Service — Greenville, NC · Mar 2016 – Mar 2017

Monitored security systems at Patheon's Greenville site and documented incidents in daily reports.

SECURITY TOOLING AND TECHNICAL PROJECTS

- **Poisoned Context (Python):** Empirical prompt-injection study of Claude Haiku 5.5 across 1,184 trials, with a design locked in git before final data and blind human coding. The model obeyed planted commands in 0 of 864 trials, yet accepted or passed on false records in 58% of undefended trials versus 9% with a prompt warning. Data and code.
- **SIGNAL::WATCH (Go):** Zero-dependency Sigma detection engine with custom YAML parsing, recursive-descent condition parsing and sliding-window correlation. 19 tests pass under the Go race detector; runs on a production VM.
- **COUNTY-GRID (Go):** Read-only Microsoft 365 and Entra auditor running daily scans with a managed identity and six read-only Graph permissions. AEGIS::GRID is its public version, with a live browser demo compiled to WebAssembly.
- **EVTXplorer (Python):** Windows Event Log analyzer with 21 YAML rules mapped to MITRE ATT&CK; 27 tests. Live lab.
- **Portcullis (Python):** Secrets scanner for file trees and git history; 65 tests. Live lab.
- **netrecon (Python):** Raw-socket network reconnaissance tool for authorized testing; 51 tests.

EDUCATION AND CERTIFICATIONS

A.A.S., Cybersecurity	Wake Technical Community College, 2025
Certificates	Penetration Testing (Wake Tech, 2025) · Pearson IT Specialist: Python (2023) · Google IT Support
CompTIA Security+	Exam planned for early 2027