

STEPHEN MORAN

Full-Stack Information Security & Lead Software Engineer

+1 615-562-2622 @ contact@stephenmoran.com stephenmoran.com linkedIn.com Nashville, TN

PROFESSIONAL SUMMARY

A seasoned and versatile Lead Engineer with over 20 years of proven experience in architecting, developing, and securing sophisticated data-driven web applications. Possesses a deep expertise in full-stack development, combined with a specialized focus on information security, data privacy, and risk mitigation. Demonstrates a strong track record of leading development teams, driving technical strategy, and delivering state-of-the-art solutions. Passionate about mentoring engineers, optimizing user experience, and achieving measurable results, including significant performance gains and operational cost reductions.

CORE COMPETENCIES

Security & DevOps: Cloud Security for AWS, Azure, and GCP, SAST & DAST, Application Security Hardening, CI/CD Pipeline Security, Threat Modeling, Risk Mitigation, Vulnerability Scanning (SonarQube, Checkmarx, BlackDuck, CodeQL, OWASP ZAP, Nikto, GoLismero), Authentication (OAuth, SSO, Ping, Siteminder), PCI DSS, GDPR, GLBA, and HIPAA Compliance, Docker, Jenkins, Gradle, Git, Linux Administration, Bash Scripting

Languages: TypeScript, JavaScript, Python, PHP, Ruby, Java, Groovy, HTML, CSS, SASS, SQL, Cypher, UML

Frameworks & Libraries: Node.js, React, Astro, SolidJS, Lit Web Components, GraphQL (Apollo, Yoga, Siler, graphql-php), gRPC, tRPC, Express, Fastify, Angular, TanStack, AlpineJS, MobX, Redux, RxJS, JQuery, D3.js, Tailwind, Laravel, Django, Flask, FastAPI, Testing Tools for Unit, Functional, and E2E

Databases: Schema/Query Design and Optimization, MSSQL, MySQL, MariaDB, SQLite, PostgreSQL, MongoDB, CouchDB, Memgraph, Neo4j

Architecture & Leadership: System & Application Architecture, Monorepo Management (Nx), Microservices, REST & GraphQL API Design, Team Leadership & Mentoring, Technical Interviews & Hiring, Agile Methodologies (Scrum), Sprint Planning & Demos

AI & Machine Learning: Computer Vision (OpenCV, Tesseract, Kraken), AI-Agents (LangGraph, PydanticAI, CrewAI), MCP Tools, Natural Language Processing (NLP), RAG & Knowledge Graphs (PyTorch, TensorFlow, LangChain, Huggingface Transformers, Parlant)

Design: Figma, Adobe Creative Suite, Balsamiq, UX/UI Design & Optimization, UML System Diagrams

PROFESSIONAL EXPERIENCE

May 2002 – Present

Contract Software Engineer and Consultant | Moran Consulting | Nashville, TN (Onsite & Remote)

Successfully architect and deliver a wide array of projects leveraging open-source technologies, with a current focus on full-stack TypeScript, Node.js, and Python-based AI/ML solutions.

- Provide expert services including custom web/mobile app development, AI-agent and chatbot creation, e-commerce solutions, and data collection via web scraping and NLP.
- Apply extensive knowledge of Information Security frameworks like SAST and DAST to secure client applications and codebases.
- Consistently reduce client IT costs by 30-50% through the strategic use of virtualization, containers, and other cloud technologies.
- Harness modern APIs and frameworks to build secure, standards-compliant, and cross-browser solutions.

May 2019 – Oct 2024

Lead Information Security Engineer | Wells Fargo | Charlotte, NC (Remote)

Directed security strategy, architecture, and team mentorship while continuing hands-on development for critical Metrics Reporting and Risk Analytics applications, including collaboration on feature roadmaps and release planning.

Leadership & Strategy:

- Initiated and led a weekly Engineering meeting to foster cross-training and collaborative solution design.
- Embedded pair-programming into team workflows to elevate skills and share knowledge.
- Led the full lifecycle of talent acquisition, from reviewing resumes to conducting technical interviews for all new engineering positions.
- Acted as the Subject Matter Expert (SME) for engineering and information security in planning meetings, feature roadmap discussions, and architectural reviews.

Security & DevOps:

- Implemented a comprehensive security scanning suite for 5 applications, integrating SonarQube for code quality, Checkmarx for SAST, and BlackDuck for risk scanning within the CI/CD pipeline.
- Led the migration of 5 applications from Siteminder to Ping authentication.
- Engineered and maintained robust CI/CD pipelines using Jenkins, Gradle, and UrbanCode Deploy (EPL).
- When code-quality hard-gates were enabled, the team's applications achieved the highest scores in the bank, leading to requests for a presentation to all development teams on the techniques employed.
- Maintained a flawless record with zero failed production deployments during entire tenure as Lead Engineer.

Application Development & Architecture:

- Architected and delivered a new TypeScript-based IAM tool using React, GraphQL, and LDAP; the tool has served millions of queries with a 10-30% performance increase over its C# predecessor.
- Designed a high-performance application stack using Astro, Fastify, and Lit Web Components, resulting in applications that perform 10-16x faster than the previous React stack.
- Engineered significant UI performance optimizations using HTML5 Canvas and Intersection Observer to render over 6,000 DOM elements for complex views.
- Built the Information Security Dashboard, featuring a grid view of 200+ metrics with drill-downs and visualizations, as well as a 13-month trend view, to provide leadership with actionable insights on program goals.
- Refactored the entire backend server stack (REST, LDAP, GraphQL) into decoupled, reusable Fastify plugins to improve maintainability and performance.
- Designed and implemented a monorepo strategy using Pnpm and Nx to unify team codebases and streamline dependency management and deployments.

Aug 2018 – May 2019

Senior Information Security Engineer | **TEKsystems (for Wells Fargo)** | Charlotte, NC (Remote)

Recruited to design the architecture and implementation strategy for a new suite of Information Security Metrics and Reporting tools. Helped assemble a development team and collaborated with the Product Owner on feature design and implementation for multiple new internal apps for Reporting and Risk Analytics.

- Architected the primary tech stack, selecting full-stack TypeScript with React, Node.js, Express, and GraphQL.
- Established team-wide coding standards, linting rules, and Git Flow policies to ensure high code quality.
- Created a custom, high-performance Apollo GraphQL Server implementation with batch-loading and query-caching, outperforming turnkey alternatives.
- Assisted in the setup and administration of Red Hat Linux servers across DEV, UAT, BCP, and PROD environments.

ADDITIONAL EXPERIENCE

Mar 2018 – May 2018

Senior Full-Stack Developer | **TEKsystems (for USAA)** | San Antonio, TX (Onsite & Remote)

Contributed to the development of a new mortgage product for USAA's Real Estate division. Completed all frontend development for the final major feature of the MVP release ahead of schedule. Provided architectural consultation on best practices for using Redux and redux-form. Implemented functional and end-to-end tests using Cucumber and Selenium.

Oct 2017 – Mar 2018

Senior Full-Stack JavaScript Developer | **TEKsystems (for Tabula Rasa Healthcare)** | North Charleston, SC (Remote)

Developed features for the MedWise Advisor Medication Risk Management platform, working on NodeJS microservices, gateway APIs, and AngularJS modules. Used extensive JavaScript expertise to resolve the team's most challenging bugs. Migrated data into CouchDB and MySQL databases and used Docker for local development and Jenkins for deploying code.

Nov 2016 – Jul 2017

Senior JavaScript Developer | **Atiba Software (for LifeWay)** | Nashville, TN (Onsite)

Built reusable ReactJS view components and utilized Redux with RxJS observables for the MyLifeWay customer portal and accompanying CSR tools. Created several new cutting-edge UI components for phone number validation and tabbed panel views.

Jun 2015 – Feb 2016

Senior JavaScript Developer | **TEKsystems (for Change Healthcare)** | Nashville, TN (Onsite)

Assisted multiple agile teams with the creation of two separate products for a company with the largest financial and administrative network in the US healthcare system. Created a HIPAA-compliant PDF generation service using Node.js. Utilized AngularJS, React, Redux, and SASS to build UI components. Resolved all browser compatibility issues for both teams. Received personal recognition from the CTO for identifying and fixing a critical production bug during a code review.

Mar 2014 – Dec 2014

Full-Stack Developer | **LogoGarden** | Franklin, TN (Onsite)

Led the conversion of the flagship product from Flash to JavaScript/AngularJS. Invented a pixel-perfect font rendering technology for the new platform. Tuned MySQL and set up real-time replication to support over 2 million users. Built and documented a REST API for the DIY LogoBuilder using the Laravel Framework. Optimized PHP environments and created VMs for testing and Docker containers for development.

May 2013 – Feb 2014

Frontend Developer | **iostudio** | Nashville, TN (Onsite)

Performed all necessary Frontend work on a Scrum team assigned to an eclectic mix of Agency projects and clients. Utilized HTML, CSS, SASS, JQuery, AngularJS, and mobile-first responsive design to complete work for clients such as NBC News, the National Guard, the US Chamber of Commerce and Toyota. Built a Python prototype that used NLP to generate the skills for a skills-based resume from job descriptions.

Apr 2012 – Apr 2013

Contract Web Developer | **TEKsystems (for Duncan Ingram)** | Chattanooga, TN (Onsite)

Worked on creating a web-based SaaS for a closed-source scientific data analysis program called RASCAL. Reverse-engineered the proprietary file format, allowing a PHP web app to generate its files. Developed a method to run the Windows-based program on Linux servers using WINE, removing Windows licensing costs. Created a Python service using Tornado which imported the files generated by the web app into RASCAL, exported the certified calculations using AutoHotkey, and updated the web-based Frontend with the calculation results.

Developed animated graphs with D3.js for displaying scientific data collected by Node sensors attached to Raspberry Pis. Helped build an application using Zend Framework, FlexiGrid, and jQuery UI to manage the largest almond handling and packaging facility in the country.

CURRENT PROJECTS

Sales Garden

Developing cutting-edge tools for businesses, including an AI-assisted Website-Builder, CRM, Online Course platform, e-commerce, AI-powered business advisors, and business task automations.

Expert Engine

Creating a platform for custom chatbots with specific expertise, using state-of-the-art conversation modeling, RAG, and Knowledge Graphs.

EDUCATION & CERTIFICATIONS

- **PyImageSearch University** | Computer Vision and Deep Learning | 2022 - 2025
- **Natural Language Processing** | Coursera Online Course (Stanford University) | 2012
- **Software Engineering for SaaS** | Coursera Online Course (UC Berkeley) | 2012
- **Zend Certified Engineer** | Zend Technologies | 2011
- **Bachelor of Arts, Music with a Business Emphasis** | Anderson University | 1999 - 2002
- **Graphic Design and Animation Core** | Art Institute of Pittsburgh | 1998 - 1999