

Profile

Results-driven software engineer with over 7 years of experience building scalable solutions and enterprise tools. Proficient in multiple programming languages including Go, TypeScript, Python, C#, Java, and Rust, with expertise in static analysis, cryptography, and runtime tooling. Currently exploring how AI/LLM tooling can accelerate development workflows and solve complex problems. Experienced in leading cross-functional initiatives and mentoring teams on best practices and clean code principles. Seeking roles that leverage full-stack development skills, systems thinking, and emerging technologies to drive meaningful impact.

Work Experience

Software Engineer, July 2025 - Present | Red Hat, Raleigh NC

- Designed and developed enterprise-wide security tooling and analysis frameworks, enabling proactive vulnerability identification and remediation across large-scale deployments.
- Built post-quantum cryptography (PQC) readiness assessment tools, helping enterprise teams evaluate and plan migration strategies for quantum-safe algorithms—critical for long-term security posture.
- Engineered static analysis rule engines and CVE detection systems, automating security assessment processes and reducing manual review time by identifying vulnerabilities at scale across diverse codebases.
- Developed runtime observation and analysis tools in Go, providing deep visibility into application behavior, performance bottlenecks, and security anomalies—enabling teams to make data-driven optimization decisions.
- Implemented enterprise-wide repository scanning solutions, automating dependency vulnerability detection across thousands of projects and significantly improving organizational security compliance.
- Leveraged AI/LLM tooling (Claude and Cursor) to accelerate development workflows, improve code analysis accuracy, and enhance documentation generation—demonstrating 40%+ productivity gains in security tool development.
- Mentored engineers on security best practices, cryptography fundamentals, and modern Go patterns while contributing to open-source security initiatives.

Software Engineer II Tech Lead, April 2023 - Present | Travelers, Hartford CT

- Led the strategic migration of cybersecurity engineers into the mobile CIAM (Customer Identity and Access Management) domain, enabling secure customer experiences through mobile platforms while aligning with enterprise security initiatives.
- Developed a secure, cross-platform authentication library using React Native with native Swift and Kotlin modules, integrating with enterprise identity providers via OAuth2 (PKCE) and SSO standards.
- Built automation and service integrations with Okta to transition legacy systems into a centralized identity framework—improving compliance and aligning with industry standards (e.g., NIST, Zero Trust).
- Collaborated with product security and enterprise architects to design compliant authentication flows for high-risk apps, earning the Innovative Solutions Award for leadership in enterprise-wide security modernization.
- Engineered CIAM services and APIs with Node.js and .NET, and drove adoption of security-first development practices—including consistent handling of tokens, encryption, and secrets management.
- Mentored engineers through regular pair programming and tech talks, emphasizing open-source practices, security hygiene, and automation.
- Experience with containerized development workflows in both Red Hat OpenShift and AWS EKS.

Full Stack Software Developer, January 2022 - April 2023 | *Dotmatics (Labarchives), San Diego CA*

- Led the migration of backend services from Ruby on Rails to Node.js and React.js, refactoring over 60% of the existing codebase to enhance maintainability and scalability, resulting in improved developer workflow and 100% test coverage of the new codebase.
- Designed and implemented new REST endpoints for legacy Ruby on Rails services, ensuring seamless integration with existing systems and adherence to industry standards.
- Optimized complex MySQL and SQLite queries for reporting systems, increasing user engagement with the system admin module by 30% through enhanced performance and responsiveness.
- Redesigned and implemented a new user reporting system using AWS ECS, Redis, and S3, improving the performance of distributing large reports by 80%, enhancing data accessibility and usability for end users.
- Developed a messaging system utilizing WebSocket protocol and ElastiCache to facilitate parallel user access of resources in the client, improving real-time collaboration and user experience.
- Designed and executed comprehensive unit, integration, and end-to-end testing strategies using Jest and Cypress, ensuring the acceptance and reliability of new functionality and features.

Software Engineer II, June 2021 – January 2022 | *MH Corbin, Raleigh NC (Fixed Contract)*

- Developed MERN stack solutions for the state department of transportation, providing real-time data on traffic sensor hardware and construction zone monitors, increasing departmental awareness of construction zone activity and improving decision-making.
- Developed protocols for communication highway sensors to roadside controller devices.
- Created a Storybook project featuring Material UI React components, streamlining the development process and ensuring consistency in UI design across the application.
- Designed and developed a Java utility application for network engineers to monitor and automate tasks on DOT networks, utilizing JSch for SSH networking and Java Swing for the GUI, enhancing efficiency and productivity in network management.
- Developed REST APIs using Python (Flask, Django) and Java (JDK 8) for on-field weather and highway condition sensors, enabling seamless data integration and analysis for monitoring and decision support.
- Maintained and optimized a PostgreSQL database for storing sensor data, ensuring data integrity and accessibility for analysis and reporting purposes.
- Developed event-driven solutions using the MQTT protocol to provide messaging services across field devices used on highways and interstates, enhancing communication and coordination among stakeholders.

Software Developer, December 2018 – June 2021 | *Farragut Systems, Durham NC*

- Developed technical solutions for workers' compensation insurance data collectors using ASP.NET Core, React.js, Redux, and MSSQL Server, resulting in a 60% increase in product quality and client satisfaction.
- Debugged and maintained legacy code in Oracle databases, ensuring the stability and reliability of existing systems while gradually modernizing the technology stack.
- Implemented unit and integration tests to maintain code quality standards and identify potential issues early in the development process, improving the robustness and stability of software products.
- Established the division's first CI/CD process using Azure DevOps Pipelines and Liquibase for database deployment, reducing deployment time by over 50% and enhancing team efficiency.
- Collaborated with clients to understand business needs and requirements, ensuring that software solutions met expectations and deadlines.

Key Skills

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- Programming Languages: Go, TypeScript, JavaScript, Python, Rust, C#, Java, Swift, Kotlin
 - Backend Development: Node.js (Express), Flask, Django, .NET Framework, .NET Core, GraphQL
 - Frontend Development: React.js, Next.js, Redux, Webpack, Babel

- Mobile Development: React Native, Native Android & iOS
- Cryptography & Post-Quantum Security: PQC algorithm assessment, NIST standards, quantum-safe migration planning, OpenSSL, cryptographic protocol design
- Security & Analysis Tools: Semgrep, Trivy, Go tooling (pprof, delve, go-fuzz), Call graphs, LLVM, Binary analysis
- Testing Tools: Jest, Cypress, XUnit, JUnit, XCTest
- Cloud & DevOps: AWS (ECS, EKS, Lambda, RDS, S3), Red Hat OpenShift, Terraform, ArgoCD
- Databases: PostgreSQL, MySQL, MSSQL Server, MongoDB, DynamoDB, SQLite
- AI/LLM Tools: OpenAI, Google Gemini, llama-cpp-python, Prompt Engineering
- CI/CD Tools: GitHub Actions, Jenkins, CircleCI, Azure DevOps, Liquibase
- Monitoring & Observability: Dynatrace, Datadog, Splunk
- Version Control: Git