

# Nathaniel Tolman O'Neal

## Contact Information

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## Professional Summary

My background is as a Security-Focused Software Solution Engineer with over 9 years of experience. I specialize in highly reliable, thick-client architectures and external-facing API integrations. I have deep expertise in Kotlin/Java backend development, GraphQL schema design, and securing data access via OAuth 2.0. I'm a proven leader in technical consultation and partner onboarding, bridging the gap between external requirements and core platform capabilities to ensure secure, low-latency performance in high-stakes environments. I excel at troubleshooting complex, cross-platform integration failures and translating partner feedback into clear technical requirements.

## Technical Proficiencies

- **Languages:** Kotlin, Java 8/11/17/21 LTS, TypeScript, Python, C#, PHP, C++, SQL, GO
- **Cloud & Security:** GCP, AWS, Docker, Kubernetes, Okta, Google Workspace, Jamf, Intune
- **DevOps:** Jenkins, Terraform, GitLab CI/CD, Git
- **Frameworks:** Spring Boot, Node.js, Express.js
- **Frontend:** React, Angular, HTML5, CSS3
- **Databases:** PostgreSQL, MySQL, MongoDB
- **Practices:** Secure Coding, Access Governance, Identity & Access Management (IAM), CI/CD

# Work Experience

## Solutions Architect

Intuit | Atlanta, GA | Sep 2024 – Present

- Serve as the primary technical consultant for 50+ partners in the Intuit App Partner Program, leading API design reviews, authentication strategy, and integration troubleshooting.
- Provide direct technical guidance to external partner developers on implementing QuickBooks RESTful and GraphQL APIs, reviewing partner code to ensure adherence to platform best practices.
- Develop and maintain technical documentation, integration guides, and Java/Node.js sample code to accelerate partner onboarding and demonstrate complex workflows like invoice creation.
- Troubleshoot and debug partner integration failures by analyzing API logs, replicating issues in sandbox environments, and resolving complex OAuth 2.0 and data-mapping issues.
- Gather and translate partner feedback on API limitations into actionable technical requirements for the core platform team, directly influencing the QuickBooks API product roadmap.
- Engineered a high-throughput, latency-sensitive Kotlin/Spring Boot microservice to process financial transaction data securely in a distributed environment.
- Implemented gRPC protocols for inter-service communication, achieving a 20% reduction in serialization overhead compared to traditional REST.
- Established robust unit and integration tests using Mockito and JUnit 5, maintaining code coverage above 90% and ensuring business logic correctness.
- Configured and optimized service deployment to Kubernetes using Helm charts, integrating with Prometheus and Grafana for comprehensive monitoring and alerting.

## Senior Java Backend Developer (Contract)

Sport Radar | Minneapolis, MN | May 2023 – Sep 2024

- Integrated access control with GCP IAM and fine-grained identity policies, ensuring SOC2-compliant governance.
- Initiated and led the migration of existing Java Spring Boot microservices to Kotlin to leverage its modern features, enhancing code safety and performance. The resulting services, deployed via Kubernetes, continued to support secure

API token management using Vault and integrated with complex GCP IAM access control policies.

- Automated provisioning workflows for contractors and engineers using Okta and GitLab pipelines.
- Supported secure API token management using Vault across microservices.
- Built scalable microservices with Spring Boot, deployed via Docker/Kubernetes.
- Collaborated with security teams to reduce IAM escalations by 40%.

## **Senior Software Engineer**

**College Board** | Reston, VA | May 2020 – May 2023

- Applied Kotlin Flow/Coroutines to build secure, asynchronous backend APIs, enhancing performance and responsiveness in a microservice environment.
- Refactored and maintained secure, high-volume backend APIs to align with a cloud-native microservice architecture, demonstrating experience and flexibility to adapt to Kotlin/Java for complex business logic applications like annuity calculations
- Implemented secure-by-design backend APIs using Node.js, React, and AWS-native services.
- Built policy-based identity workflows integrating with Google Workspace and Okta.
- Reduced privileged access usage 35% by introducing RBAC controls across platforms.
- Launched MDM automation using Intune for 5,000+ endpoint devices.
- Led efforts to unify access logs via SIEM for enhanced auditability.

## **Software Engineer**

**eBay** | Salt Lake City, UT | Apr 2016 – May 2020

- Developed secure transaction APIs in Java and PHP with integrated access control layers.
- Built internal admin portals using JavaScript/TypeScript and React, enabling scoped user access.
- Partnered with the security team to improve OAuth token scopes and session policies.
- Built internal admin portals using JavaScript/TypeScript and React and improved OAuth token scopes and session policies, showcasing flexibility to adapt to technology and relevant experience with access, security, and integration

## **Software Engineer**

**Instructure** | Salt Lake City, UT | Jan 2011 – Apr 2014

- Developed web portals using PHP and JavaScript for LMS platforms.
- Built RESTful APIs enforcing scoped access based on user roles.
- Automated device onboarding scripts via Jamf and group policies.
- Integrated MFA flows with Google identity for student accounts.
- Maintained user directory sync with early-stage Okta deployment.

## **Education**

**Utah Valley University** | Orem, UT

- **Bachelor of Science in Computer Science** | 2017 – 2020