**Nathaniel Tolman O'Neal**

**Contact Information**

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## Professional Summary

Results-oriented and highly motivated Software Engineer with over 9 years of experience designing, developing, and deploying scalable full-stack applications, APIs, and cloud-native solutions. Adept in Java, C#, JavaScript/TypeScript, Python, and modern frameworks such as Spring Boot, .NET, React, and Node.js. Extensive experience across AWS, GCP, and Azure cloud platforms, DevOps practices (CI/CD, Docker, Kubernetes), and Agile methodologies. Known for technical leadership, cross-functional collaboration, and delivering resilient systems in fast-paced environments.

## Technical Proficiencies

**Languages:**

C++ (C++20), C# (C# 12), Java (Java 21 LTS), JavaScript (ES2023), PHP (PHP 8.3), Python (Python 3.12), Swift (Swift 5.10), Ruby (Ruby 3.3), TypeScript (TypeScript 5.4), Go (Go 1.22)

**API Development:**

RESTful APIs (Design and Implementation using Node.js 20.x, Express.js 5.0, Spring Boot 3.2, Django 5.0, Flask 2.3), GraphQL APIs (Design and Implementation using GraphQL.js 16.x, Apollo Server 4.x, Spring GraphQL 1.3)

**Cloud & DevOps:**

AWS (EC2, S3, Lambda, RDS, CloudFormation), Google Cloud (Compute Engine, Cloud Storage, Kubernetes Engine), Azure (VMs, Blob Storage, AKS, Azure DevOps), Docker (Containerization), Kubernetes (Orchestration), Jenkins (CI/CD), Ansible (Configuration Management), Terraform (Infrastructure as Code)

**Web Development Frameworks:**

Node.js, Express.js, Django, Flask, Ruby on Rails, Angular, React, Vue.js

**Server Side:**

Java 11 (Spring Boot 3.2, Spring MVC, Servlets, Tomcat), .NET, ASP.NET

**Client Side:**

HTML5, CSS3, Bootstrap, JavaScript, TypeScript, jQuery, AJAX, Node.js, React

**Data Storage/Access:**

MySQL, Postgres DB, MongoDB, Spring Data, Spring ORM, JDBC, NoSQL, SQLite, Redis

**Supporting Technologies:**

Git, Visual Studio Code, Maven, Junit, Google Docs, Linux, Mockito, Agile methodologies (Scrum/Kanban), Test-Driven Development (TDD)

**Other:**

AI, Data Structures and Algorithms, Machine Learning, Microservices, RESTful API Development, GraphQL, Webpack, Babel, npm, Cybersecurity, Blockchain

# Work Experience

**Sport Radar | Minneapolis, MN**

**Senior Java Backend Developer (Contract) | *May 2023 - September 2024***

- Gained proficiency in both Kotlin (using the Quarkus framework) and Java 11 for backend development, emphasizing clean, efficient code.
- Utilized gRPC for efficient, low-latency service-to-service communication.
- Implemented GraphQL for flexible, client-specific data querying capabilities.
- Managed source code and collaborated on version control using Git and GitLab, fostering a culture of code review and shared responsibility.
- Orchestrated containerized applications with Docker, facilitating consistent deployment and scaling across development environments.
- Hands-on experience successfully implementing scalable solutions using GCP tools such as Compute Engine, Cloud Storage, BigQuery, and Kubernetes Engine. Demonstrated ability to enhance operational efficiency and drive business growth through effective cloud architecture, deployment, and management.

**College Board | Reston, VA**

**Senior Software Engineer | May 2020 – May 2023**

- Led and mentored a team of five engineers, fostering growth through code reviews, design sessions, and technical direction within Agile frameworks.
- Architected and developed scalable platforms and core features using AWS (Lambda, S3, EC2, RDS), Java (8/11), Node.js, and React.
- Launched a digital test registration system, reducing registration processing time by 35%.
- Built event-driven serverless applications and APIs (RESTful/GraphQL) handling 10,000+ requests per second.

- Deployed analytics and reporting dashboards leveraging AWS ECS, CloudFormation, and Athena.
- Enhanced CI/CD pipelines and infrastructure reliability using Jenkins, Terraform, Docker, and Kubernetes, cutting deployment time by 60%.
- Served as a key liaison between engineering and stakeholders, translating business needs into technical architecture.
- Troubleshot and resolved production issues, including a cross-service latency bottleneck, improving response times by 45%.

**eBay | Salt lake City, UT**

**Software Engineer | April 2016 - May 2020**

- Developed and maintained IT applications/systems using C#, Java (8 and 11), JavaScript, SQL, and T-SQL
- Conducted application testing and provided business intelligence reporting for leadership decision making.
- Ensured application production support to maximize availability, utility, flexibility, and responsiveness.
- Developed user-friendly interfaces, optimizing user experience and interaction.
- Deployed applications using containerization technologies like Docker and orchestration systems like Kubernetes.
- Developed RESTful APIs for data integration and consumption.

**Netflix | Salt Lake City, UT**

**Cyber Security Analyst | January 2011- April 2014**

- Worked closely with the IT department to ensure the secure installation and operation of all hardware and software.

- Performed risk assessments and testing of data processing systems.
- Conducted vulnerability assessment and penetration testing, identifying necessary patches or remediation.
- Acted promptly in response to security incidents and provided detailed incident reports.
- Used C++, Python, JavaScript, PHP, SQL, and Wireshark for network evaluation and reporting.

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## Education

**Utah Valley University | Orem, Utah**

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

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## Projects

E-commerce Application (Java):
Developed a robust application facilitating user account creation, product display, and transaction processing. Technologies used: Spring Boot, Spring Data, Spring MVC, Spring AOP, PostgreSQL, React. [GitHub]

**Compiler Project (C#):**
Developed a comprehensive lexical analyzer, parser, and syntax and semantic analysis tool. [GitHub]

**Virtual Machine Project (C++):**

Designed and implemented a VM/Assembler project, including infix to postfix conversion and memory management. [GitHub]

**Flash Card App (Java):**

Developed a full-stack application enabling users to create, manage, and interact with virtual flashcards. Technologies used: HTML, CSS, TypeScript, PostgreSQL, AWS RDS, AWS S3. [GitHub]