Nathaniel Jahromi

Software Engineer

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Summary

Highly accomplished and results-oriented Software Engineer with over 10 years of experience in large-scale software development, solution design, and architecture across diverse industries including financial services, government, e-commerce, and gaming. Proven ability to thrive in complex integration environments with shifting stakeholder expectations and technical debt. Expert in designing and developing highly scalable microservices, REST APIs, and multi-step API orchestration workflows using Node.js and AWS technology stack. Adept at capturing nuanced requirements in customer-facing capacities and reasoning about latency in distributed systems. Seeking a challenging remote contract-to-hire opportunity to leverage extensive experience in building robust and performant software solutions.

Experience

Infosys | Phoenix, AZ (Remote since March 2020) **Lead Software Engineer / Solutions Architect** | June 2019 – Present

- **American Express (June 2023 – Present):** Led the design and development of a new real-time fraud detection microservice leveraging Node.js and AWS Lambda, integrating with Kafka for event streaming and DynamoDB for low-latency data access. Architected and implemented API orchestration workflows for complex authorization processes, reducing latency by 15% and improving transaction success rates. Managed technical debt by refactoring legacy Java services into modern Node.js microservices, significantly enhancing maintainability and scalability. Collaborated directly with business stakeholders to gather detailed requirements and translate them into technical specifications, ensuring alignment with evolving business needs.

- **Citizens Bank (January 2022 – May 2023):** Designed and developed a secure customer onboarding platform, implementing RESTful APIs using Node.js and Express.js, deployed on AWS EC2 instances with auto-scaling groups and an RDS PostgreSQL database. Orchestrated integrations with various third-party financial services APIs, including credit check and identity verification, ensuring seamless data flow and error handling. Mentored junior engineers on best practices for microservices development, API security, and AWS deployment strategies. Conducted performance tuning and optimization of API endpoints, resulting in a 20% reduction in average response times.

- **State of Rhode Island (July 2021 – December 2021):** Developed a critical public health data reporting system, creating robust Node.js APIs to ingest and process large volumes of data from disparate sources. Utilized AWS S3 for data storage and AWS Athena for complex query analysis, ensuring data integrity and accessibility. Implemented comprehensive error logging and monitoring using CloudWatch, providing real-time insights into system health and performance. Collaborated with state agencies to define data requirements and ensure compliance with regulatory standards.

- **Komatsu (January 2021 – June 2021):** Contributed to the development of an IoT data ingestion pipeline for heavy machinery, designing Node.js services to handle high-throughput sensor data. Implemented message queuing with AWS SQS and processing with AWS Kinesis, ensuring reliable data delivery and scalable processing. Developed API endpoints for data visualization and analytics applications, providing operational insights to clients.

- **Intel (July 2020 – December 2020):** Worked on an internal developer portal, building Node.js microservices to manage API documentation, user authentication, and access control. Integrated with internal enterprise systems using a combination of REST APIs and GraphQL. Focused on building highly available and fault-tolerant services using AWS services like ELB and Auto Scaling, ensuring continuous access for developers.

- **Rich's Foods (January 2020 – June 2020):** Developed e-commerce backend services, focusing on order processing and inventory management using Node.js and MongoDB. Designed and implemented RESTful APIs for integration with a front-end e-commerce platform. Optimized database queries and API responses, improving system performance by 25% during peak traffic.

- **Ameriprise (August 2019 – December 2019):** Contributed to the development of a client relationship management (CRM) system, building Node.js APIs for data access and manipulation. Integrated with legacy financial systems using a combination of SOAP and REST interfaces. Focused on data security and compliance with financial regulations, implementing robust authentication and authorization mechanisms.

- **Connecticut DMV (June 2019 – July 2019):** Participated in a rapid development initiative for a new online vehicle registration

portal. Developed Node.js microservices for form validation, payment processing, and integration with state databases. Ensured high availability and responsiveness of the platform for public use.

- **Infosys InStep Internship Program (Mentor)** | 2021, 2022, 2024, 2025
    - Mentored and guided undergraduate interns through full-stack development projects, focusing on Node.js backend development, microservices architecture, and AWS deployments. Provided technical leadership, code reviews, and fostered a collaborative learning environment.

Amazon | Baltimore, MD **Software Development Engineer** | July 2017 – June 2019

- Developed and maintained highly scalable backend services for Amazon's e-commerce platform using Node.js, Java, and AWS. Designed and implemented RESTful APIs for critical functionalities such as product catalog management, order fulfillment, and customer notifications.
- Played a key role in a team responsible for optimizing API orchestration workflows across multiple internal services, resulting in a 10% reduction in overall transaction latency.
- Utilized AWS services extensively including EC2, S3, SQS, SNS, DynamoDB, and Lambda to build robust and fault-tolerant systems capable of handling millions of requests per second.
- Participated in on-call rotations, debugging and resolving production issues in a complex distributed environment.
- Contributed to the design and implementation of A/B testing frameworks to evaluate new features and optimize user experience.

SparkyPants Studios | Baltimore, MD **Software Engineer** | May 2015 – July 2017

- Developed and maintained game server logic and backend services for multiplayer online battle arena (MOBA) games using Node.js and C++. Implemented REST APIs for client-server communication, user authentication, and in-game economy management.
- Designed and optimized database schemas (PostgreSQL) for high-volume player data and game state.
- Managed real-time communication systems, including WebSockets, to ensure low-latency interactions for thousands of concurrent players.
- Collaborated with game designers and artists to translate creative visions into technical specifications and implement game features.
- Developed internal tools and dashboards for monitoring server performance and player activity.

Technical Skills

Languages: Node.js, JavaScript, TypeScript, Python, Java, C++

Frameworks & Libraries: Express.js, NestJS, React (basic understanding), Spring Boot, AWS SDK

Cloud Platforms: Amazon Web Services (AWS) - EC2, Lambda, S3, SQS, SNS, DynamoDB, RDS, API Gateway, CloudWatch, Kinesis, Athena

Databases: PostgreSQL, MongoDB, DynamoDB, MySQL

APIs & Protocols: REST, GraphQL, SOAP, WebSockets, Kafka

Tools & Methodologies: Git, Docker, Kubernetes (basic understanding), Agile/Scrum, CI/CD, JIRA, Confluence

Operating Systems: Linux, macOS, Windows

Education

University of Baltimore (Baltimore, MD) - Bachelor of Science Cum Laude - Simulation & Digital Entertainment (2015)