

Atoshem T. Ghebrehiwet

Senior Software Engineer

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Washington, DC

EXPERIENCE

BTI360, Herndon, VA — Senior Software Engineer

Nov 2023 - PRESENT

- **Architecture and Implementation:** Responsible for architecting and implementing several microservices, ensuring they are scalable, efficient, and adhere to best practices
- **Event-Driven Design:** Leveraged AWS services to build an event-driven architecture, facilitating real-time data processing and integration with various downstream systems, reducing data processing time by 40%.
- **Documentation and Design:** Created comprehensive documentation and design diagrams for several microservices, ensuring clarity and ease of understanding for future enhancements
- **Client Showcases:** Regularly showcased design and implementation progress to clients, incorporating their feedback to refine and improve the solutions, leading to a 20% increase in client satisfaction.
- **Cross-Functional Collaboration:** Collaborated with multiple cross-functional teams, including data engineers, product managers, and QA teams, to ensure seamless integration and alignment with overall project goals, enhancing team productivity by 30%.
- **Performance Optimization:** Continuously monitored and optimized the performance of the microservices, implementing improvements that enhanced efficiency by 35% and reduced latency by 25%.

Capital One, Washington, DC — Senior Software Engineer

May 2021 - PRESENT

- **Designed and maintained a high-performance, cloud-hosted sensitive-data tokenization service:** Designed a scalable architecture using Java 17 and Spring Boot, containerized with Docker, and deployed on AWS ECS. Estimated and achieved a 99.99% uptime, supporting millions of transactions per month.
- **Developed and maintained the interface and backend API:** Architected and implemented a secure, scalable API for the tokenization platform, ensuring high availability and supporting over 100 concurrent API requests per second.
- **Designed and implemented a loosely coupled, event-driven messaging service using AWS SQS:** Architected a solution that facilitates communication with various downstream consumer

SKILLS

- Kubernetes, Openshift
- Amazon Web Services
- Microservices
- Java, Spring boot
- Rust
- Golang
- Angular
- ReactJS
- Terraform
- SQL, NoSQL
- Jenkins
- Maven, Gradle
- Python, Bash scripting
- Helm
- Hashicorp Vault
- Splunk
- Prometheus

AWARDS

Leidos Innovation Award - 2020

Fannie Mae Digital

Accelerator Award - 2019

LANGUAGES

English, Arabic , Tigrinya and Amharic

CERTIFICATIONS

- CKAD (Kubernetes)
- AWS Developer (Associate)
- AWS Solutions Architect (Associate)
- HashiCorp Certified: Terraform Associate
- Security+

systems, reducing message processing time by 40% and increasing throughput by 2x. The system handles up to 500,000 messages per second during peak load, ensuring efficient and reliable data flow across the platform.

- **Contributed to the development of client SDKs in Java and Python:** Designed and developed SDKs that facilitated API integration for over 50 external client applications, reducing integration time by 30%.
- **Created a comprehensive test suite for API validation:** Developed a Postman test suite, automating 95% of API validation tests, reducing manual testing efforts by 70%, and ensuring a 99% accuracy rate in test results.
- **Integrated API service monitoring with Splunk and New Relic:** Instrumented custom metrics and logging for the API service, providing detailed performance insights and proactive issue detection. This integration resulted in a 50% faster response time to incidents and improved overall system reliability.
- **Authored detailed technical documentation:** Wrote and maintained extensive documentation for APIs and SDKs, reducing developer onboarding time by 40% and improving overall integration success rate by 25%.
- **Established a robust CI/CD pipeline:** Architected and deployed a CI/CD pipeline using Jenkins and GitLab CI, reducing deployment time by 50% and increasing deployment frequency by 2x. Estimated reduction in deployment errors by 30%.

Leidos, Washington, DC — Senior Software Engineer

NOV 2019 - MAY 2021

- **Developed customer-facing features for USCIS using Angular and Spring Boot:** Collaborated with cross-functional teams to design and implement user-centric features, enhancing the user experience for the USCIS application. Leveraged Angular for the frontend to create dynamic and responsive interfaces, and utilized Spring Boot for the backend to ensure robust and scalable service delivery. This resulted in a 25% increase in user satisfaction and a 20% improvement in application performance.
- **Successfully streamlined AWS deployments using Jenkins pipelines:** Demonstrated extensive knowledge in creating and managing Jenkins pipelines to automate build, test, and deployment processes to AWS. Applied industry best practices to ensure continuous integration and continuous deployment (CI/CD), resulting in a 50% reduction in deployment time, a 30% improvement in code quality, and a 25% reduction in deployment errors.
- **Containerized and deployed microservices on the OpenShift platform:** Utilized Docker to containerize applications and deployed them on RedHat OpenShift, streamlining deployment processes and enhancing scalability and manageability of the microservices architecture. This reduced deployment time by 40% and improved scalability by 30%.

- **Spearheaded the migration from RedHat OpenShift to AWS EKS:** Led the migration of the initial 5 microservices, ensuring a smooth transition and improved scalability, reliability, and performance. The migration resulted in a 35% increase in system reliability and a 20% reduction in operational costs.
- **Led brown-bag session on containerization technology (Docker):** Conducted an educational session to introduce and explain Docker containerization technology to team members, covering key concepts, best practices, and practical use cases. This initiative enhanced team knowledge, increased Docker adoption by 50%, and improved overall development and deployment processes.

Fannie Mae, Herndon, VA — *Software Engineer*

JUN 2018 - NOV 2019

- **Developed web applications using Angular and Spring Boot (Java):** Designed and implemented scalable and responsive web applications by leveraging Angular for frontend development and Spring Boot (Java) for backend services. Improved application performance and user engagement by 30%, and facilitated seamless integration with various third-party services.
- **Decomposed monolithic application into microservices:** Strategically broke down a large, monolithic application into smaller, manageable microservices. This transformation enhanced system scalability, reduced deployment times by 40%, and improved fault isolation and recovery by 50%.
- **Improved test performance by decoupling and parallelizing execution of code on Jenkins:** Enhanced the efficiency of testing processes by decoupling and parallelizing test execution on Jenkins, resulting in a 60% reduction in overall test execution time and a 25% increase in test coverage.
- **Automated tests using Selenium API, Cucumber, Rest Assured, TestNG, and JUnit:** Developed comprehensive automated test suites using Selenium API, Cucumber, Rest Assured, TestNG, and JUnit. This automation improved test accuracy, reduced manual testing efforts by 70%, and accelerated the release cycle by 30%.
- **Restructured application design to enable blue-green deployments:** Redesigned application architecture to support blue-green deployments, minimizing downtime and ensuring seamless transitions during updates. This restructuring led to a 50% reduction in deployment-related issues and improved system availability.
- **Assisted in gathering business requirements from clients:** Collaborated with clients to gather and analyze business requirements, ensuring alignment with technical solutions. This involvement resulted in a 20% increase in client satisfaction and more accurately scoped project deliverables, leading to more successful project outcomes.

Freelance, online — *Web Developer*

JUN 2016 - PRESENT

- **Manage monthly site updates (Non-Paid Work):** Oversaw and execute monthly updates for web applications using HTML, CSS, and Vanilla JavaScript with jQuery. Ensured the timely release of new features, bug fixes, and performance enhancements. Additionally, it helped enhance my skills and challenged me with new problems, driving continuous personal and professional growth.

EDUCATION

University of Virginia, Charlottesville, VA — *Bachelors of Computer Science - GPA : 3.3*

Aug 2016 - May 2018

Northern Virginia Community College, Alexandria, VA — *Associates of Mathematics - GPA : 3.95*

Jan 2014 - May 2016