

Dagmawit Assefa

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Professional Summary

Backend software Engineer with 5+ years of experience building and scaling distributed backend systems, including payment and finance platforms. Particularly focused on reliability, observability, and delivering product value through robust architectures and collaborative engineering.

Experience

Software Engineer III

New York City, NY

Peloton Interactive

August 2020 - Present

- **Led end-to-end integration of a new payment partner**, Trumed, into e-commerce checkout, enabling HSA/FSA payments; collaborated with product, legal, and finance teams to ensure compliance and data consistency, resulting in a ~10% increase in checkout conversion.
- **Led a single to multi-cluster AWS migration** for a critical event-driven financial reporting microservice, improving availability, reducing latency, and increasing fault tolerance for global e-commerce operations; ensured data integrity, auditability, and compliance with internal reporting standards.
- **Built a next-generation payments platform microservice**, decoupling fundamental components of payments and tax from legacy monolith systems to enable modular, scalable, and reliable workflow via Kotlin-based Springboot platform microservice; reduced partner onboarding time by ~50%, improved system maintainability, and enhanced checkout reliability while ensuring full legal compliance.
- **Architected and developed a subscription billing workflow** orchestrating event-driven communications via Kafka across microservices for fault-tolerant recurring payment processing; prevented billing errors like double-charging using auto-recovering retries with Temporal; designed reusable payment wallet abstractions, reducing effort to add new partner integrations by ~60%; provided high observability for high-volume, long-running workflows.
- **Championed operational excellence and continuous learning** consistently improving system transparency, self-healing ability and incident response processes to deliver business value reliably using Datadog metrics & SLOs; designed and executed service-level load testing with K6 to validate performance for high-traffic periods such as holiday season; lead a bi-weekly team learning session for knowledge sharing and skill development

Technical Skills

Languages: Python, Kotlin

Cloud, Infrastructure, CI/CD: AWS (EC2, S3, RDS, Step Functions, IAM), Docker, Kubernetes, Jenkins, ArgoCD

Frameworks & APIs: Spring Boot, REST, Temporal, PyTest, K6

Data & Messaging: PostgreSQL, Kafka, SQS, DynamoDB

Education

Wellesley College

Wellesley, MA

B.A. in Computer Science and Physics

Monroe University

New Rochelle, NY

M.Sc. in Computer Science (Expected 2027)