Tensaiye Zelealem

taz231@nyu.edu ● +1 571-444-9923 ● New York City, NY ● www.linkedin.com/in/tensaiye-zelealem

SKILLS

Languages: Go, Java, Python, JavaScript, TypeScript, SQL, Solidity, Bash/Shell scripting, YAML

Backend & Systems: Distributed Systems, Cryptographic Key Management, Blockchain & Smart Contracts, Byzantine Fault Tolerance (BFT), Event-Driven Architecture, Microservices Architecture

Infrastructure & DevOps: Docker, Kubernetes, Azure, Git, CI/CD, Infrastructure as Code (Helm), Confidential Computing (Intel SGX), Monitoring & Observability

EXPERIENCE

Intel |New York City, NY **May 2023 – July 2025**
Software Engineer (Grade 6) | Cloud, Security & AI

- Integrated SFAI (Secure Federated AI) with Dynatrace, replacing static 5-minute interval monitoring with real-time metrics and alerts; improved anomaly detection speed by over 95%.
- Built cross-platform onboarding tooling for SFAI, automating setup across macOS, SGX, and CUDA VMs; cut manual setup time by over 60%, lowered support overhead, and streamlined onboarding for internal engineers and external clients.
- Developed and enhanced the ITP SDK for Intel's Ledger as a Service (LaaS), optimizing the Ledger Operator, which runs in a Trusted Execution Environment (TEE) for secure control plane and data plane operations.
- Led development of ITP SDK CLI, streamlining secure control plane operations with privacy-aware defaults; reduced manual exposure to sensitive configurations by 40–60%.
- Implemented cryptographic key management within the ITP SDK using SGX-sealed Ed25519 keys, reducing attack surface and ensuring secure key isolation in trusted execution environments.
- Integrated a logging framework with correlation IDs across the ITP SDK, enabling engineers to trace multi-request HTTPS flows end-to-end, which accelerated debugging and improved issue resolution efficiency.
- Strengthened microservices architecture and APIs across the ITP SDK, ensuring reliable communication between secure ledger components and external systems; eliminated single points of failure and improved system resilience.

VMware |New York City, NY **Feb 2022 – May 2023**
Software Engineer (MTS 2) | Cloud & Blockchain

- Deployed VMware blockchain on the Azure Cloud platform, supporting 4 regions, incorporating advanced features such as Multi-Region Deployment, Full Copy Client, Scaling, Reconfiguring, and Cloning.
- Designed and rolled out a generic testing framework for ERC20 and ERC721 smart contracts, increasing test coverage from 0% to 75-90%.
- Integrated mTLS protocol across 4+ dApps, bolstering data encryption and access control; reduced unauthorized data breaches and ensured SOC2 compliance.
- Created a dApp for VMware Blockchain that managed access control for permissioned smart contracts, enabling users to assign READ, WRITE, and DEPLOY permissions to any address.
- Applied Test-Driven Development (TDD) to raise test coverage from 44% to 90%, reducing post-deployment defects by 28% through early bug detection with JUnit.

Coinbase |New York City, NY **Sep 2021 – Dec 2021**
Software Engineer Intern

- Engineered backend search functionality, implemented like/unlike features for NFTs, and enabled account following capabilities within a newly released NFT platform, driving user engagement and enhancing community interaction.
- During the initial three-day period of the early access release, the platform garnered the attention of 1.1 million users.

VMware |Arlington, VA **May 2021 – Aug 2021**
Blockchain Engineer Intern

- Engineered an end-to-end NFT smart contract interface/platform using VMware blockchain technology.
- Designed the backend architecture for a Digital Art NFT platform, enabling users to mint and transfer Digital Art NFTs.

EDUCATION

New York University — *M.S. in Computer Science* **June 2020 – Dec 2021**
Manchester University — *B.S. in Software Engineering*, Minor in Mathematics & Data Science **August 2016 – May 2020**