Yawo Alphonse Siatitse

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Software engineer with 6 years at Microsoft Security building high-throughput distributed services, security-research platforms, and identity and access management on Azure (C#/.NET + React/TypeScript) — from a pipeline processing 4M+ submissions per day to threat-research tooling used across Microsoft. Also building consumer web platforms end to end as personal projects.

Skills

Languages: C#, TypeScript, Go, Java, Python, C++, SQL
Backend & Cloud: .NET / ASP.NET Core, Entity Framework Core, PostgreSQL, Azure (Service Fabric, Functions, Container Apps, Cosmos DB, Blob Storage, Key Vault, Entra ID), REST / OpenAPI (Swagger), GraphQL, OpenTelemetry
Frontend: React 18/19, Redux, Vite, Tailwind CSS, shadcn/ui, ag-Grid
Security: IAM (RBAC, OAuth 2.0 On-Behalf-Of, OIDC / Auth Code + PKCE, Auth0), threat modeling & data-flow diagrams, application security, tenant isolation, Zero Trust architecture
Infrastructure: infrastructure as code (Bicep), Docker & Docker Compose, YAML build/release pipelines, Azure DevOps, CI/CD & safe-deployment practices, monitoring & incident response

Experience

Microsoft Corporation, Microsoft Threat Protection — Redmond, WA
Software Engineer II — *Oct 2024 – Present*

- Own a critical pipeline moving detected malicious samples into quarantined analysis storage — **4M+ submissions per day** — underpinning Exchange Online Protection's migration to a detonation-as-a-service platform projected to save **$1–2M per month**; built dual-environment (dev/prod) YAML build and release pipelines covering both infrastructure and application for **single-click deployment**, refactored the service for Secure Future Initiative compliance, and integrated OpenTelemetry for end-to-end observability.
- Designed and shipped the data model, ingestion pipeline, APIs, and UI/UX behind a detection-effectiveness grading system for Microsoft Defender for Office 365; clustered review with auto-assignment of highest-impact clusters and one-click verdict propagation improved researcher grading efficiency by **4x**.
- Developed a reusable, thread-safe OAuth 2.0 On-Behalf-Of library with configurable caching, enabling platform services to call external APIs securely under fine-grained, API-owner-controlled permissions.
- Led the research platform's onboarding into a governed, compliance-certified Microsoft tenant, centralizing investigation workflows and strengthening data-access controls in line with Microsoft's Zero Trust strategy.
- Leading the migration of spam-rule authoring from a legacy locked-down desktop tool to the web-based research platform, designing secure cross-tenant connectivity with RBAC; the feature directly protects millions of Exchange email customers.
- Migrated two production codebases from end-of-life .NET 6 to .NET 8 (LTS) with centralized NuGet package management, reducing version drift and speeding responses to component-governance and security alerts; as subject-matter expert, drive production-incident investigations — including root-causing a longstanding crash behind recurring multi-region outages via crash-dump analysis.

Microsoft Corporation, Unified Security Intelligence — Vancouver, Canada
Software Engineer II — *May 2023 – Oct 2024*

- Spearheaded, as dev owner, the productization of a remote browser-isolation tool for safely detonating and exploring malicious websites for threat research: implemented auditing, logging, and guardrails preventing customer-data exfiltration; co-created the threat model and data-flow diagram with the architect; established its build and release pipelines and brought the service to full compliance in a government-grade cloud environment.
- Designed and implemented a configurable malware-detonation-sandbox abstraction in the security researchers' portal, letting users from any Azure tenant submit samples for detonation and view results with RBAC-enforced per-customer data privacy; deployed across three Microsoft tenants, replacing a legacy portal.
- Built the ingestion pipeline and business logic for an email-campaign clustering and annotation feature that computes similarity hashes upstream and surfaces clustered campaigns for researcher review, integrating with an automated cluster-tagging engine.
- Modernized the research platform's access control by migrating entitlement management to a more robust identity-governance system, strengthening auditability and user onboarding.

Microsoft Corporation, Cloud + AI Security — Redmond, WA
Software Engineer & Software Engineer II — *June 2020 – May 2023*

- Cut sample-preview load time in the security researchers' investigation portal from **20+ seconds to under 3 seconds** in the slowest geography (India) by redesigning the preview panel and adding a pre-processing service; raised sample

artifact availability from **under 20% to about 75%** with an artifact-copy service.

- Reduced threat-hunting page load time from **30+ seconds to under 4 seconds** by replacing a frontend-API dependency with direct blob-storage integration; end-to-end pipeline integration made samples available for annotation **immediately at ingestion instead of an hour later**.
- Redesigned the portal's sample-ingestion pipeline with per-feed isolation and a unified schema, cutting new-feed onboarding from a code change plus redeployment to **minutes**; added logging and monitoring that detects the majority of pipeline outages before customers notice.
- Designed and implemented the portal's RBAC authorization framework — extensible, fine-grained access control with access-request audit logging — critical because the portal's tooling could cause high customer damage if misused.
- Delivered a compliant malicious-URL annotation workflow, retiring a legacy tool whose design risked exposing credentials for analytics and storage services and forced researchers onto restricted machines within data-retention windows.
- Designed and implemented the pipeline, APIs, and UI for a URL-campaign clustering feature that groups submissions in near real-time so researchers can detect and block phishing campaigns in their early stages.
- Strengthened operations by adding Key Vault and Azure AD support to 4 services, designing release pipelines for 3 backend services, and fixing the team-wide compliant build pipeline required for artifact signing; improved portal usability with ag-Grid filtering and UI restructuring that reduced user error.

University of Rochester, Horizon Research Rochester, NY
Undergraduate Research Assistant *Aug 2018 – May 2019*

- Worked in a team of 3 under Professor Yuhao Zhu to prototype a real virtual-reality headset on an FPGA board with a novel computer architecture aimed at reducing computation time and power consumption; the work led to a peer-reviewed publication at ACM FPGA 2020.

Morgan Stanley, Corporate Funding & Technology New York, NY
Summer Technology Analyst (Full-Stack Developer) *Jun 2018 – Aug 2018*

- Designed and shipped 2 new features for a data-visualization web portal, saving admin users about **120 hours per year**; wrote unit and integration tests using JUnit and Cucumber.

University of Rochester, Department of Computer Science Rochester, NY
Teaching Assistant, Data Structures & Algorithms and Computer Organization *Jan 2018 – May 2020*

- Ran lab sessions twice a week to help students complete assignments and projects; co-built 3 autograders used to grade labs and projects for **135+ students**.

Personal Projects & Publications

- **Publication** — *Energy-Efficient 360-Degree Video Rendering on FPGA via Algorithm-Architecture Co-Design*, ACM FPGA 2020 (co-author): cut rendering energy **55%** vs. a mobile GPU at the same frame rate with no perceptible quality loss. doi.org/10.1145/3373087.3375317
- **UniAccess** (2026–present) — Pan-African university admissions portal, starting with Angola: students build one academic profile, apply to universities, and track decisions. C#/.NET 10 REST API with Azure Functions background jobs, React 19 + Vite frontend, PostgreSQL, Auth0, Stripe + Multicaixa Express payments; hosted on Azure Container Apps.
- **Vibaze** (2025–present) — Nightlife and event ticketing platform built end to end: .NET 8 ASP.NET Core API with EF Core and PostgreSQL, React 18 + TypeScript + Tailwind/shadcn frontend, Auth0 (Auth Code + PKCE) with role-separated access, Azure Blob Storage, and Azure infrastructure defined in Bicep.
- **EventPilot** (2026) — DJ business-management app built API-contract-first: a single OpenAPI spec generates both the Go server types and the React frontend's TypeScript SDK; Go backend deployed on Fly.io with Docker and a `make verify` CI gate.

Education

Johns Hopkins University — Graduate Certificate in Cybersecurity *May 2026*

University of Rochester Rochester, NY
BS in Computer Science, High Distinction — Dean's List, National Society of Collegiate Scholars *May 2020*

Leadership & Additional

Volunteering: Young People Who Care, Computer Science Peer Tutoring, BUILD-in-a-Box, National Society of Black Engineers

Languages spoken: Fluent in Ewe, French, and English; basic Spanish

Interests: Technology, entrepreneurship, sport, music, dance, community service