

Yawo Alphonse Siatitse

Software Engineer · Product Security · Full-Stack Development · Cloud Infrastructure

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Software engineer with 6+ years in Microsoft's security organization, building cloud security platforms on Azure with C#/.NET and React/TypeScript. Work spans high-volume event-driven pipelines, identity and access (Entra ID, OAuth 2.0, RBAC), a shared Azure OpenAI platform for security researchers, and threat-modeled, GDPR-reviewed services with tested business-continuity plans. Founder of Mawussi Solutions, delivering product security, full-stack development, and infrastructure work for startups and SaaS teams.

SKILLS

Languages: C#, TypeScript, Go, Python, Java, C++, SQL, PowerShell

Backend & data: .NET / ASP.NET Core, EF Core, REST / OpenAPI, GraphQL, PostgreSQL, Redis, Cosmos DB, MongoDB, Kafka / Event Hubs, Service Bus

Cloud: Azure (Functions, Container Apps, Service Fabric, Blob Storage, Key Vault, Entra ID, Monitor / App Insights), Azure OpenAI, API Management, Cloudflare, OpenTelemetry

Frontend: React 18/19, Redux, Vite, Tailwind CSS, shadcn/ui, ag-Grid

Security: threat modeling & data-flow diagrams, IAM (Entra ID, OAuth 2.0 On-Behalf-Of, OIDC / PKCE, RBAC, Auth0), Zero Trust, tenant isolation, DevSecOps (CodeQL / SAST, fuzz testing, vulnerability scanning), GDPR privacy design, AI/LLM access governance, Cloudflare WAF

Infrastructure: Bicep, Docker, Kubernetes, YAML CI/CD pipelines, Azure DevOps, GitHub Actions, safe deployment, monitoring & incident response, BCDR planning & recovery drills

Architecture: distributed systems, microservices, event-driven design, caching & async processing, multi-tenant capacity management, API & system design

EXPERIENCE

Microsoft

Redmond, WA

Software Engineer, Security

Oct 2024 – Present

- Own a high-volume ingestion pipeline that moves millions of malicious samples a day into quarantined storage. Designed tiered storage to cut cost, built single-click build and release pipelines gated by static analysis, fuzz testing, vulnerability scanning, and AI-assisted code review, and added distributed tracing.
- Scaled a shared Azure OpenAI platform for hundreds of security researchers by distributing capacity across subscriptions behind a single API gateway, with routing, load balancing, and data-residency controls.
- Built per-user token rate limiting with API Management policies so no single workload can starve the rest, plus an escalation path for critical work.
- Designed and shipped the data model, pipeline, APIs, and UI for a detection-quality review system; clustered review and one-click verdict propagation made reviews 4x faster.
- Built a reusable, thread-safe OAuth 2.0 On-Behalf-Of library with configurable caching that services use to call downstream APIs under fine-grained permissions.
- Led the platform's move into a governed, compliance-certified environment aligned with Zero Trust, strengthening data-access controls.
- Leading a cross-team migration of a critical workflow from a legacy desktop tool to the web platform, clearing a long-standing authentication blocker.
- Upgraded production services from .NET 6 to .NET 8 and lead production-incident investigations, including root-causing a recurring crash from crash dumps.
- Mentor interns and new engineers; serve on the hiring interview loop and contribute to design reviews, code reviews, and postmortems.

Microsoft

Vancouver, BC

Software Engineer, Security

May 2023 – Oct 2024

- Cut sample-preview load time from 20+ seconds to under 3 in the slowest region with a redesigned preview and a pre-processing service, and raised artifact availability from under 20% to about 75%.
- Dev owner for a remote browser-isolation service for investigating malicious websites: wrote the threat model and data-flow diagram, built auditing, access logging, and data-exfiltration guardrails, set up build and release pipelines, and brought it to full compliance in a hardened cloud environment.
- Owned the service's privacy design (data minimization, retention, residency, and cross-border transfer) through GDPR review.

- Wrote the service's business-continuity and disaster-recovery (BCDR) plan and ran the recovery simulations that validated failover and restore.
- Designed a multi-tenant malware-detonation sandbox layer with RBAC keeping each customer's data private, replacing a legacy portal.
- Built the ingestion and business logic for an email-campaign clustering and annotation feature.
- Migrated entitlement management to a stronger identity-governance system and built a fine-grained RBAC framework with an audit-log entry for every access request.

Microsoft

Software Engineer, Security

Redmond, WA

Jun 2020 – May 2023

- Cut threat-hunting page loads from 30+ seconds to under 4 with direct blob-storage integration; samples became available at ingestion instead of an hour later.
- Redesigned sample ingestion with per-feed isolation and a unified schema, cutting new-feed onboarding to minutes, with monitoring that catches most outages before users notice.
- Delivered a compliant annotation workflow for malicious URLs, replacing a legacy tool.
- Built the pipeline, APIs, and UI for near-real-time phishing-campaign clustering so researchers can spot and block campaigns early.
- Added Key Vault and Azure AD support across services and designed release pipelines for backend services.

University of Rochester, Horizon Research

Undergraduate Research Assistant

Rochester, NY

Aug 2018 – May 2019

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

Morgan Stanley, Corporate Funding & Technology

Summer Technology Analyst (Full-Stack Developer)

New York, NY

Jun 2018 – Aug 2018

- Designed and shipped 2 new features for a data-visualization web portal, saving admin users about 120 hours per year.

University of Rochester, Department of Computer Science

Teaching Assistant, Data Structures & Algorithms and Computer Organization

Rochester, NY

Jan 2018 – May 2020

- Ran twice-weekly lab sessions and co-built 3 autograders used to grade labs and projects for 135+ students.

INDEPENDENT PRODUCTS & PUBLICATION

- **UniAccess** (2026–present): pan-African university admissions portal, launching in Angola first: one academic profile, apply to universities, track decisions. C#/.NET 10 REST API with Azure Functions jobs, React 19 + Vite, PostgreSQL, Auth0, Stripe + Multicaixa Express payments, on Azure Container Apps.
- **Vibaze** (2025–present): nightlife and event ticketing platform built end to end. .NET 8 API with EF Core and PostgreSQL, React 18 + Tailwind/shadcn, Auth0 (Auth Code + PKCE) with role-separated access, Azure Blob Storage, Cloudflare Pages behind Cloudflare WAF, Bicep infrastructure.
- **EventPilot** (2026): business-management app for DJs, built API-contract-first: one OpenAPI spec generates the Go server types and the React TypeScript SDK; deployed on Fly.io with a *make verify* CI gate.
- **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.

EDUCATION & CERTIFICATIONS

Microsoft Certified: Azure Solutions Architect Expert (AZ-305)

Aug 2026

Microsoft Certified: Azure Administrator Associate (AZ-104)

Jul 2026

Johns Hopkins University — Graduate Certificate in Cybersecurity

May 2026

University of Rochester — BS in Computer Science, High Distinction · Dean's List · National Society of Collegiate Scholars

May 2020

ADDITIONAL

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

Languages: fluent in English, French, and Ewe; basic Spanish · Interests: technology, entrepreneurship, sport, music, dance