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EXPERIENCE

Walmart Global Tech — *Sunnyvale, California*

Senior Software Engineer *(Promoted twice),* **01/2022–Present**

- Senior Software Engineer on **Walmart's Tier-0 Identity and Access Management (IAM) Platform**, a mission-critical system handling millions of **IAM, SSO, and MFA** requests per minute underpinning all authentication and authorization scenarios for the entire user base of walmart.com and its global subsidiaries.

Achievements:

- **Walmart's ambitious Walmart Commerce Platform (WCP)**: Engineered the high-throughput SSO and federated session architecture enabling one login across all digital channels like web, mobile, and partner brands, eliminating reauthentication and enabling cross-brand journeys. Implemented tenant-aware globally distributed backend services supporting **hundreds of applications** and **tens of millions of active users**, maintaining **sub-150 ms** average auth latency globally. Architected high-availability and **DR-ready** identity services (multi-region failover, active-active), achieving **99.999% uptime** during major global shopping events.
- **RememberMe Takeover:** Re-architected Walmart's core session platform, migrating session management from legacy Reme to the multi-tenant IAM stack serving both B2C and B2B workloads. **Migrated 1.2B+ sessions** over three days **at ~5K TPS** while maintaining **99.999% availability**, and scaled the platform to **25M+** active sessions and **1.56M** session validations per minute. Optimized compute and storage utilization to cut the runtime footprint from **480 to 225 pods** for a 20K OPM workload, delivering **60% YoY cost reduction (~$920K** annually**)** and **30–50%** latency improvement across critical APIs.
- **End-to-End FIDO2 Engineering:** Engineered Walmart's enterprise-grade FIDO2 / Passkey platform end-to-end, exposing WebAuthn-based authentication as a first-class backend service for web and mobile clients. Orchestrated a **zero-incident rollout** on **AKS** using **Flagger A/B canary** strategies, continuously tracking attestation performance, p99 latency, and **device-mix regressions** across **100M+** monthly login attempts, ultimately enabling passwordless authentication for **200M+** customer identities with no production impact.
- **ASDA Divestiture:** Architected **CoreID**, Walmart's associate identity orchestrator, as a **hybrid routing layer** that brokers authentication between on-prem Walmart Active Directory and Azure AD for ASDA, Walmart's UK grocery division. Drove a **feature-flagged, store-by-store migration** of **~1,200 stores** and **150k associates** to Azure AD—owning cutover strategy and routing logic while maintaining **uninterrupted access to point-of-sale (POS)** and workforce applications and cleanly **decoupling ASDA from Walmart's internal directory systems.**
- **Resiliency, Monitoring and Alerting:** Hardened Walmart's IAM platform by implementing **fine-grained rate limiting** at both the application and Istio layers (per-API and per-consumer), designing **CPU/memory–driven autoscaling strategies** to absorb traffic spikes, and building **SLO-based alerting** on end-to-end latency, 4xx/5xx error rates, and **rate-limit saturation** (**80%** threshold warnings). Developed Grafana dashboards backed by **Prometheus scraping** service, **Istio**, and **Logstash-derived metrics** to provide real-time visibility into service health, capacity headroom, and regressions, enabling proactive intervention before customer impact.

NASA — *Fairfax, Virginia*

Software Development Engineer **(08/2020 - 01/2022)**

- Software Developer for **NASA's** Data-System Project called **The Helio-Physics Application Programmer Interface (HAPI)** data access specification, a RESTful API and streaming format specification to deliver digital time-series data.

Achievements:

- **Implemented HAPI-compliant data services** (5 required REST endpoints) that ingested complex, mission-specific satellite and ground-based telemetry and transformed it into machine-processable **JSON/CSV time-series with rich metadata**, exposed via a standardized **REST API** for cross-mission scientific analysis.
- **Designed and built Storage-Agnostic Data Access APIs** that decoupled clients from underlying storage details (file layout, formats, mission idiosyncrasies), enabling cross-mission analysis and programmatic access to **~3,000 datasets** across **60+ missions**/mission groups through a single consistent interface.
- **Worked with NASA heliophysics data-center engineering teams** to harden the HAPI spec and server implementation, standardizing error handling, streaming behavior and metadata conventions to **improve cross mission compatibility** and significantly reducing ad-hoc **ETL and custom parser work** in research workflows.

EDUCATION

George Mason University — *Fairfax, Virginia*
Master of Science in Computer Science ***- GPA: 3.80*** (01/2020 - 12/2021)

Jawaharlal Nehru Technological University — *Hyderabad, India*
Bachelor of Engineering in Computer Science ***- GPA: 3.70*** (06/2015 - 05/2019)

SKILLS

Languages – Java (primary), JavaScript, TypeScript, SQL, C; **Backend –** Spring Boot, Spring, REST APIs, Microservices, Kafka, Node.js, Express.js**; Data –** Oracle, SQL Server, PostgreSQL, MongoDB, Redis, Cosmos DB**; Cloud/Infra –** AWS, GCP, Azure, Docker, Kubernetes (AKS); **DevOps/Obs –** Git, Jenkins, Maven, Gradle, Nexus/Artifactory, Vault, Akeyless, Prometheus, Grafana, Kibana, Splunk, Dynatrace; **Frontend (working knowledge) –** React.js, Angular.js.