

Jessica Hamilton

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EXPERIENCE

• Amazon Web Services (AWS) DynamoDB

Seattle, WA

Software Engineer

January 2023 – Present

- **Live Replication Ledger Sweeper:** Negotiated the end-to-end design with engineering leadership and launched a safety-first cleanup system for the live replication ledger, striking the balance between cross-region sync, investigation trails, and GDPR/CCPA/HIPAA retention limits.
- **Metadata Cleanup Sweeper:** Blueprinted and implemented a scalable sweeper for a critical metadata table, safely reducing 1.1M entries to 100K; cut replication delays from six hours to five minutes and restored customer-facing consistency checks.
- **Global Tables GDPR Compliance:** Launched a six-engineer workstream, auditing partner teams and later advising as a consultant so global tables teams could replace the 36 dev-days per quarter of risky manual cleanups with safe automation that keeps privacy promises.
- **Intern Mentorship & GDPR Automation:** Coached a first-time intern on my team from classroom experience to a return offer, teaching safe data-handling patterns and code quality so we could automate privacy deletions across regions without regressions.
- **Multi-Region Consistency Cleanup:** Owned design-to-launch of a release-blocking strong-consistency feature that tightened the replica delete workflow, eliminating the orphaned encrypted copies table deletes used to leave behind in some regions and keeping the launch privacy-safe.
- **Monitoring & Dashboards:** Defined 22 product-focused KPIs and built dashboards translating raw metrics into leadership-friendly signals; dashboards were used in senior leadership go/no-go launch decisions.

• Amazon Web Services (AWS) DynamoDB

Seattle, WA

Software Engineering Intern

June 2022 – September 2022

- **Workflow Parallelization:** Optimized internal testing tool used by 300+ DynamoDB engineers; designed and implemented multithreaded setup that cut environment provisioning time from 5h to 30m at p99, accelerating service development and launch velocity.

VOLUNTEER

• Camp Oasis

Seattle, WA

Volunteer Instructor

Summer 2025

- **Teaching:** Led and taught a class of 50+ students (ages 6–13) living with Crohn's disease or ulcerative colitis, introducing programming fundamentals through Scratch.

PROJECTS

• GDPR-Friendly Key-Value Store

GitHub | Design Doc

Designer & Developer

2025

- **Subject-Centric Data Layer:** Added subject→keys mapping and API (Create, Put, Get, Delete) with validations, tombstoning, and precise retention.
- **Tamper-Evident Audit Trail:** Built append-only audit log with hash chaining, request IDs, and granular event types for immutable replay.
- **Erasure & Retention Engine:** Designed PurgeSweeper with GSI + transactional deletes to ensure provable, idempotent erasure post-retention.

EDUCATION

• University of Washington

Seattle, WA

BA with Concentration in Information Systems; GPA: 3.89

Sep. 2018 – Dec. 2021

SKILLS

- **Languages:** Java (primary), Python, SQL, Rust, Bash
- **Services:** DynamoDB, IAM, KMS, EC2, CDK, CloudWatch
- **Privacy & Compliance Law:** GDPR/CCPA/HIPAA regulations, data lifecycle governance, automated cleanup workflows