

YICHONG SHEN

DATA / AUTOMATION ENGINEER

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SUMMARY

Software and data engineer with nearly four years at Amazon building reliable financial pipelines, reconciliation workflows, and operational automation. Experienced in high-volume extraction, data correctness, orchestration, observability, and turning manual processes into maintainable tools.

SKILLS

Java Technologies: Java SE 8/11, Java EE concepts, Spring and Spring Boot concepts through comparable Amazon-internal Java frameworks, microservices, REST APIs

Architectures: Event-driven architecture, Apache Kafka concepts, pub/sub and queues, ETL and batch pipelines, orchestration, retry/replay, DLQs, run-state tracking, idempotent upserts

Databases: DynamoDB, SQL, Spark SQL, Cloudflare D1, data modeling, schema evolution, composite keys, data validation and reconciliation

Languages: Python, Java, TypeScript, SQL, Spark SQL, Google Apps Script

Specialized Software: Visual Studio, Visual Studio Code, Git, GitHub, AWS CDK, containers, CI/CD, Google Sheets, CloudWatch, monitoring and alerting

Cloud Technologies: AWS ECS Fargate, Lambda, EventBridge, DynamoDB, S3, CloudWatch; Cloudflare D1

Miscellaneous Skills: Data quality, production investigation, workflow automation, problem solving, cross-functional communication, project ownership

PROFESSIONAL EXPERIENCE

Amazon | Software Development Engineer | Jul 2022 - Apr 2026

Prime Video Financial Systems | Jan 2023 - Apr 2026

Ledger ETL & Data Quality

- Owned the design and delivery of a ledger ETL service processing a daily batch of 400,000+ rows from 150+ MB CSV files, with full-file validation, composite keys, versioned upserts, and safe replay.
- Selected Spark SQL and ECS Fargate after evaluating three architectures; secured direct source-table access, eliminated an incomplete intermediate dataset, and built S3/EventBridge orchestration with four-account deployment.

Financial Reconciliation Automation

- Automated Apple remittance adjustments and investigation reporting, replacing an estimated 96 accountant-days of annual manual effort with approximately 1-2 engineer-hours per run.
- Expanded a source-driven test generator to seven product lines, cutting creation from 1-2 days to 10 minutes per marketplace and saving an estimated 20-40 engineer-days across 2025 launches.

Migration, Monitoring & Data Integrity

- Led a three-phase Apple accounting migration across seven regional groups; reconciliation checks found no transaction loss or duplicate booking.
- Diagnosed a booking/reconciliation defect affecting ~\$7.5M in unmatched transactions; added DLQ dashboards and alarms covering 12 issue classes and improved average resolution time by 20%.

Amazon Music | Software Development Engineer | Jul 2022 - Jan 2023

- Built monitoring and support tooling for distributed backend services, converting recurring production-data failures into actionable workflow improvements.

SELECTED PROJECTS

Tournament Leaderboard | Client data automation | Live

- Delivered a Google Apps Script pipeline that validates and imports Drive CSVs, recalculates configurable standings, and publishes searchable history for 375 players (late-August 2026 snapshot); processed 60+ events in August 2026.

EDUCATION

University of California, Irvine | B.S. Computer Game Science