# Joshua Morris

morrisjosh792@gmail.com | 631-560-8087 | joshuamorris.dev | linkedin.com/in/joshua-m-993140165

## SUMMARY

Full-stack software engineer with 4 years in financial services building data-heavy analytics platforms with Java/Spring Boot, Angular, and Snowflake. Experienced owning features from API design through production launch, plus deployment and infrastructure work.

## EXPERIENCE

**BNY** August 2022 – Present

*Software Engineer*

- Owned Lockbox Navigator, a client-facing analytics product for BNY's Lockbox service, from approved designs to production across Angular, Spring Boot and Snowflake. It includes cross-filtering, drill-down and a feature-flagged demo mode with masked data.
- Removed the 1,000-row cap end to end with ag-grid lazy loading, server-side pagination and sorting, and a query strategy that scales past the limit.
- Designed and built the backend for a human-in-the-loop review workflow for AI-generated insights: a nine-status state machine, 9 documented REST endpoints, and an append-only Snowflake audit trail with guarded MERGE writes proven under concurrent load. Covered by about 460 unit tests and 10 Snowflake integration-test classes.
- Took over the Imply Druid upgrade (2024.01 LTS → 2025 LTS, Java 11→17). Made the Ansible playbook upgrade-safe, root-caused a stale ZooKeeper host in inventory, and verified ingestion jobs.
- Root-caused production Pivot export failures to Node heap exhaustion on large exports. Shipped a mitigation and an async-download fix backed by MSQ durable storage on S3.

## PROJECTS

**MTA API** — github.com/joshmorr/mta-api

- Built a REST API on Bun and Hono that unifies the MTA's static and real-time GTFS feeds (subway, LIRR, Metro-North) into plain JSON across 10 endpoints, with Zod-validated requests and an OpenAPI 3 spec generated from the same schemas.
- Decoded real-time protobuf feeds with per-feed caching, in-flight request deduplication, and stale-on-error fallback to cut redundant upstream fetches.
- Built a daily GitHub Actions pipeline that compiles ~2.9M rows of static schedule data into a checksum-verified SQLite snapshot in object storage; instances download it on boot, which let them run on a 512MB VM instead of 2GB.
- Exposed 9 read-only MCP tools over stdio and streamable HTTP that call the same service layer as the REST routes in-process, so LLM agents can query transit data directly.

## SKILLS

**Languages:** Java, TypeScript, SQL
**Frameworks & Libraries:** Spring Boot, Angular, React, Bun
**Database:** Snowflake, Imply Druid, SQLite
**DevOps & Tooling:** Docker, Ansible, GitHub Actions

## EDUCATION

**SUNY New Paltz** — BS, Computer Science August 2019 – May 2021
**Suffolk County Community College** — AS, Computer Science January 2017 – May 2019