Muhammad Yassa

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EDUCATION

Queens College, City University of New York Queens, NY
B.A. in Computer Science; GPA: ***3.87/4.00*** *Expected May 2027*
Honors: Provost Scholar (3 awards); Dean's List (7 semesters)
Relevant Coursework: Data Structures & Algorithms, Operating Systems, Database Systems, Computer Architecture, Software Engineering

EXPERIENCE

Software Engineering Intern Mar 2025 – May 2025
DNR Events LLC | DNRcast podcast and live-audio app (~900 daily active users across iOS and Android)

- Developed a daily Sudoku feature for DNRcast in **C#/.NET MAUI** (XAML, MVVM) with notes, conflict detection, undo/redo, and completion checks on a four-engineer Agile team.
- Built an authenticated **ASP.NET Core** daily-puzzle API and **Quartz.NET** scheduler to generate daily boards using randomized backtracking.
- Added 24-hour **IMemoryCache** and SemaphoreSlim synchronization to prevent duplicate loads; reduced cached puzzle retrieval from **34 ms to 0.2 ms** in benchmarks.

PROJECTS

WatchMate - Movie & TV Tracking App Solo | Jul 2025 – Present | mywatchmate.us | GitHub
Java, Spring Boot, MySQL, Redis, React, TypeScript, Docker

- Built and deployed a Java 21/Spring Boot REST API and React 19/TypeScript app; reached **100 users** and **4,298 episodes tracked** within two months.
- Implemented **JWT authentication** with Spring Security, hashed and atomically rotated refresh tokens, and Bucket4j rate limiting.
- Moved multi-season TMDB imports to **asynchronous background jobs** (202 Accepted and polling) with a scheduled worker to keep work off request threads.
- Reduced movie-detail latency from **420 ms to 28 ms** with Redis caching; achieved 80% cache hits and 75% fewer TMDB requests in a 10,000-request benchmark.
- Achieved **~90% line coverage** with JUnit and Testcontainers; automated testing and OCI VM deployment with GitHub Actions and Docker Compose.

NYC Housing Intelligence Platform Solo | In Development | GitHub
Python, PostgreSQL/PostGIS, GDAL, SQLAlchemy, Docker

- Automated **MapPLUTO release discovery and acquisition**, including official ZIP downloads, integrity verification, and data validation before ingestion.
- Built transactional staging-to-silver merges for **856,614 NYC tax lots** in PostgreSQL/PostGIS, with schema and geometry validation.
- Made re-imports idempotent through record comparisons; repeat runs produced **0 duplicates and 0 unnecessary updates**.
- Protected failed and overlapping imports with advisory locks, retries, rollback, and recovery; verified with **230 passing tests (85 integration)**.

Renter Dispute Assistant Course Team Project | 3 Engineers | GitHub
Node.js, Express, MySQL, React, Gemini API

- Built Node.js/Express and MySQL workflows for authenticated case management, case-level access controls, evidence-image uploads, and landlord responses.
- Built dispute filing-path selection and prefilled **official New York PDF forms** for review/download; integrated the Gemini API for structured, nonbinding assessments using both parties' evidence, with timeouts, image limits, and structured output.

TECHNICAL SKILLS

Languages: Python, Java, SQL, JavaScript, TypeScript, C#
Backend & Frontend: Spring Boot, Spring Security, ASP.NET Core, Node.js, Express, React, Tailwind CSS
Data & AI: PostgreSQL, PostGIS, MySQL, Redis, SQLAlchemy, Gemini API
Testing & Tools: pytest, JUnit, Testcontainers, GitHub Actions, Docker, Git, Linux, OCI