

# Charles Henry Dubreuil

📍 Brooklyn, New York, United States ✉ charles\_dubreuil053100@yahoo.com 🌐 in/charles-dubreuil053100 🖱 xs0litud3x.github.io/portfolio-personal-website/

## SKILLS

**Languages:** Java, Kotlin, Python, TypeScript, JavaScript, Swift, Rust, Go, C#, C++, C, SQL, HTML, CSS

**Frameworks, Libraries, and Engines:** Spring Boot, SwiftUI, React, Next.js, Tailwind CSS, Unity, Unreal Engine, JUnit, Mockito, JDBC

**Tools:** Git, GitHub, Maven, Postman, VS Code, Xcode

**Concepts:** REST API design, MVC, OOP, data structures and algorithms, Big O, TDD, CI

## EDUCATION

### Bachelor of Science in Computer Science

City University of New York: Brooklyn College • Brooklyn, NY • 2024

## EXPERIENCE

### Software Engineer Apprentice

Revature

January 2025 - June 2025, Reston, VA

- **Spring Boot REST API design:** modeled resources and routes; applied **HTTP verbs and status codes**, validation, pagination, and versioning; shipped **5+ endpoints** with **30% faster response time**.
- **TDD with JUnit:** wrote unit and integration tests using **JUnit** and **Mockito**; maintained **95% coverage** and **0 critical production defects**.
- **Postman and API workflows:** built **collections** and **environments**, parameterized requests, added **test scripts**, and produced shareable docs to speed QA and onboarding.
- **Maven and Git:** managed dependencies and build profiles with **Maven**; used **Git and GitHub** for branching, pull requests, code review, and resolving merge conflicts; delivered **reproducible builds** in CI.
- **Core Java, MVC, and data layer:** applied **OOP**, **Collections**, and **Streams**; enforced **MVC** with controllers, services, and repositories; implemented **JDBC** with transaction management and dependency injection; achieved **20% efficiency gains** across key paths.

### Software Engineer Interview Prep Program

CodePath

May 2024 - December 2024, San Francisco, CA

- **Curriculum and complexity:** Stayed ahead of weekly requirements while mastering data structures, algorithms, Big O, and time and space complexity.
- **Python problem solving:** Solved 50 plus algorithmic problems in Python, reducing average solution time from 45 minutes to under 20 minutes with an 85 percent first submission success rate.
- **Mock interview performance:** Completed 12 mock interviews, improving performance from 60 percent to 90 percent and strengthening communication under pressure.
- **Algorithm optimization:** Refactored a graph traversal from  $O(n^2)$  to  $O(n \log n)$ , applying recursion, complexity analysis, and optimization techniques.
- **Behavioral prep using STAR:** Practiced 15 STAR format responses, boosting clarity and reducing filler language by 50 percent.

## PROJECT

### Subscription Cancellation Flow

Migrate Mate • [github.com/xs0litud3x/mm-cancel-flow-task-Charles](https://github.com/xs0litud3x/mm-cancel-flow-task-Charles) • July 2025 - August 2025

- Shipped a pixel-accurate **Next.js + TypeScript + Tailwind** app in **72 hours**, matching **100 percent** of the Figma flow on **mobile and desktop** across **12 routed pages**.
- Implemented a deterministic **50/50 A/B** downsell using **crypto-secure RNG** with **sticky assignment**; Variant B applies **10 dollars off** (25 to 15, **-40 percent**; 29 to 19, **-34 percent**) and **persists in the DB**.
- Secured every form with **CSRF tokens**, **Row-Level Security**, **server-side validation**, and **XSS sanitization** covering **100 percent of submissions**; refactored to avoid nested forms, resulting in **0 hydration errors**.
- Delivered the **progressive journey**, including a Found a job branch that **splits by Migrate Mate vs external job source**, with **tailored visa prompts** and **2 distinct final screens** and **0 dead ends**.

### RESTful API Social Blog

Revature • [github.com/xs0litud3x/xs0litud3x-pep-project](https://github.com/xs0litud3x/xs0litud3x-pep-project) • May 2025 - June 2025

- Designed and implemented a **Java Spring Boot** RESTful API with **JDBC**; migrated from Javalin and optimized endpoints to cut average response time by **25 percent**.
- Built **user registration and authentication** plus full CRUD message operations, achieving **98 percent** onboarding success and **50 percent** fewer login failures.
- Applied **MVC** conventions (**controllers**, **services**, **repositories**) and a **Controller-Service-DAO** architecture with dependency injection, reducing code duplication by **40 percent** and speeding feature delivery by **30 percent**.
- Enforced robust **data validation** (message length, non-empty text, user existence) with Spring validation and service-layer checks, reducing invalid submissions by **60 percent**.
- Authored **80 plus JUnit** unit and integration tests (registration, login, create, retrieve, delete), reaching **95 percent** coverage and catching **90 percent** of edge-case bugs pre-release; used **Git** and **GitHub** for branching, pull requests, and code review.

## CERTIFICATIONS

### CodePath Technical Interview Prep Certificate

CodePath • 2024

- Certificate Of Achievement For Technical Interview Prep