Charles Henry Dubreuil

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EXPERIENCE

Software Engineer Trainee - Java & RESTful API Development

Revature

January 2025 - June 2025, Reston, VA

- · Designed and implemented 5+ RESTful endpoints using Spring Framework and Java, achieving 95% test coverage and reducing average response time by 30%.
- · Employed Test-Driven Development to build and maintain 10 functional REST APIs, resulting in zero critical defects in production.
- · Completed 108 coding exercises, improving my average problem-solving speed by 40% and maintaining a 90% accuracy rate.
- · Passed 14 concept evaluations with a 100% success rate, demonstrating mastery of core topics like JDBC, transaction management, and dependency injection.
- · Leveraged Java Collections and Streams to optimize algorithms, reducing time complexity by 20% across key challenge solutions.

Software Engineer Trainee – Technical Interview Preparation

CodePath

June 2025 - December 2024, San Francisco, CA

- · Completed an 8-week accelerated program in the top 10% of a 150-person cohort, mastering data structures, algorithms, and technical interview strategies.
- Solved 50+ LeetCode-style problems, improving my average solution time from 45 minutes to under 20 minutes and maintaining an 85% first-submission success rate.
- · Participated in 12 weekly mock interviews, raising my performance score from 60% to 90% and receiving consistently positive feedback on problem-solving approach.
- Strengthened understanding of time/space complexity, recursion, and optimization by refactoring a sample graph traversal algorithm from O(n²) to O(n·log n).
- · Practiced 15 STAR-format behavioral responses in group sessions, boosting my communication clarity and reducing filler language by 50%.

PROJECT

Social Media Blog API

Revature • github.com/xS0litud3x/xS0litud3x-pep-project • April 2025 - June 2025

- Designed and implemented a RESTful API with Java, Javalin, and JDBC, optimizing endpoints to reduce average response time by 25%.
- Built user registration, authentication, and full CRUD message operations, achieving a 98% onboarding success rate and 50% fewer login failures.
- · Applied a three-layer (Controller-Service-DAO) architecture to cut code duplication by 40% and speed up feature delivery by 30%.
- · Enforced data validation (message length, non-empty text, user existence), resulting in a 60% reduction in invalid submissions.
- Authored and ran 80+ JUnit unit and integration tests covering registration, login, message creation/retrieval/deletion, achieving 95% code coverage and catching 90% of edge-case bugs before
 release

3D Driving/Racing Simulator

Brooklyn College • github.com/xS0litud3x/PrototypeCars-CISC4900 • January 2024 - June 2024

- As part of a Unity game design course, iteratively refined level layouts and vehicle handling through 10+ weekly playtesting sessions, boosting peer realism ratings by 25% and cutting handling complaints by 50%.
- Placed and optimized 150+ 3D objects with Unity's editor and C# scripts to build 3 course prototypes, reducing average scene load times by 20%.
- Implemented responsive car controllers using Rigidbody and WheelCollider components, maintaining a steady 60 FPS during high-speed maneuvers and eliminating frame drops.
- Developed vehicle behavior scripts for acceleration, braking, steering sensitivity, and suspension, decreasing lap-time variance by 15% through physics-based tuning.
- Leveraged Unity Asset Store packs to assemble environments 40% faster, importing and configuring roadways, props, and buildings for cohesive scenes.
- · Designed and delivered three distinct course layouts (highway, urban, obstacle track), achieving 100% project grade and positive feedback on design complexity.

FullStack Football Team Webpage

Brooklyn College • github.com/xS0litud3x/Mock-Football-Team-Webpage • August 2023 - December 2023

- Independently designed and developed the full-stack prototype in 3 weeks, delivering a fully functional demo to 10+ stakeholders.
- Managed user data with SQL, implementing input validation and parameterized queries that eliminated SQL injection risks and cut validation errors by 75% in QA testing.
- Created a JavaScript countdown timer for the football season kickoff, enhancing the demo's interactivity and polish.
- Implemented secure PHP-based sign-up and sign-in pages, validated against 50+ test cases with a 98% success rate.
- Built and styled responsive interfaces with HTML and CSS, tested across 5 device resolutions to ensure consistent display.
- Developed the football team website by integrating front-end (HTML, CSS, JavaScript) and back-end (PHP, SQL), achieving 90% code coverage and passing 100% of user acceptance tests.

EDUCATION

Bachelor of Science in Computer Science

City University of New York: Brooklyn College • Brooklyn • 2024 • 3.0

CERTIFICATIONS

CodePath Technical Interview Prep Certificate

CodePath • 2024

· Certificate Of Achievement For Technical Interview Prep.

SKILLS

Programming Languages: Java. Python, JavaScript, HTML, CSS, SOL, PHP, C#

Software Engineering & Concepts: Object-Oriented Programming, Data Structures & Algorithms, Java Design Patterns, Agile Methodologies, Git, Maven

Frameworks & Libraries: Spring Core, Spring Data JPA, Spring Web, Spring MVC, JUnit, Mockito

 $\textbf{Tools \& Platforms:} \ \ \text{Windows, Linux, macOS, GitHub, IntelliJ IDEA, VS Code}$

Interests: Video Games, Bodybuilding, Content Creation