

Curriculum Vitae

Accomplished Software Developer with a robust internship experience and a passion for backend development and system optimization. Enhanced application performance by spearheading migration to Spring framework and reducing startup times significantly. Excel in troubleshooting and improving device performance through comprehensive technical support and development of user training programs, resulting in increased digital literacy and user satisfaction. Possess a strong command of full-stack development, with expertise in Java, and JavaScript, and familiarity with Python, C++, PostgreSQL, Node, React, and Spring Framework. Adept at fostering continuous integration and delivering robust, maintainable code, ready to contribute to dynamic development teams and projects.

Qualification Summary

- **Web Development (Front-end & Back-end):** Expertise in front-end technologies (HTML, CSS, JavaScript) and back-end development (REST APIs, microservices, server-side frameworks).
- **Database Management:** Strong skills in working with relational (MySQL, PostgreSQL, Oracle) and NoSQL databases (MongoDB, Cassandra) for data storage and retrieval.
- **Version Control and Collaboration:** Advanced knowledge of Git, GitHub, GitLab, and Bitbucket for version control, along with experience in working in agile environments using tools like JIRA or Asana.
- **API Development and Integration:** Hands-on experience in designing, developing, and integrating RESTful and GraphQL APIs, ensuring efficient communication between services.
- **DevOps and CI/CD:** Familiarity with Docker, Kubernetes, Jenkins, and CI/CD pipelines for automating build, test, and deployment processes.
- **Cloud Technologies:** Experience with cloud platforms like AWS, Azure, or Google Cloud, including services like EC2, Lambda, and S3, for scalable application deployment and management.
- **Software Testing and QA:** Proficiency in writing unit tests, integration tests, and end-to-end tests using tools like JUnit, Selenium, Jest, or Mocha for ensuring code quality.
- **Web Development:** Strong understanding of responsive design, cross-browser compatibility, and front-end optimization techniques (Webpack, Babel, etc.) to deliver efficient user interfaces.
- **Data Structures and Algorithms:** Deep knowledge of core computer science concepts like data structures (trees, graphs, hash maps) and algorithms (sorting, searching, dynamic programming) to optimize code performance.

Education and Credentials

CUNY York College, Jamaica, NY

Major: Computer Science, B.S (GPA: 3.79)

Programming Coursework: Data Structures, Principles of Programming Languages, Operating Systems, Software Development, Network Computing

CS Coursework: Automata and Computability, Assembly Language Programming, Computer Architecture

Certification:

The Complete Web Development Bootcamp (2024), Online course - Udemy

Professional Experience

Techbasic

Feb 2025 – Apr 2025

Software Developer, Trainee

Contributed to the full-stack development of a comprehensive Logistics Management System, focusing on designing and implementing robust architecture using Django, API integration, and user experience optimization. Operated in an Agile environment, applying modern engineering practices and tools. Gained exposure to cloud services, microservices architecture, and machine learning fundamentals through hands-on project modules.

- Developed RESTful APIs using Django and Flask for inventory, order, and shipment operations, supporting modular and scalable backend services.
- Integrated Stripe's PaymentIntent API for secure, server-side payment processing, improving transaction flow and customer trust.
- Implemented shipment tracking with route optimization using OpenRouteService, Geopy, and Folium, enhancing delivery efficiency and ETA accuracy.
- Managed and queried relational data using PostgreSQL and MySQL, with Django ORM for secure and efficient data handling.

Revature (Talent Development) Software Developer, Intern

Jun 2024 – Aug 2024

Developed and maintained software applications, assisted in debugging and troubleshooting code, participated in code reviews, contributed to team discussions on design and implementation, and documented processes and solutions. Supported testing efforts and gained hands-on experience with various technologies, enhancing skills in agile development environment. Fostered continuous integration and version control proficiency with Git.

- Migrated and enhanced backend of a Social Media Blog API to the Spring framework, resulting in enhanced performance and scalability.
- Developed and debugged Java applications using VS Code and Debugger for Java, ensuring robust code through unit and integration testing with JUnit and Mockito.
- Reduced application startup time by 30% through the implementation of Spring Boot, enhancing overall performance.
- Utilized Spring's dependency injection to improve code maintainability, leading to cleaner and more modular code.

CUNY York College Library IT Assistant

Jun 2022 – Dec 2023

Resolved diverse hardware and software issues, delivering prompt and effective technical support to library users. Applied expertise in Windows OS, MS Office, along with strong problem-solving, communication, and time management skills to optimize user experience. Coordinated with IT team to maintain library computer systems, ensuring operational efficiency and minimal downtime.

- Enhanced device performance by 35%, significantly reducing system errors and improving user satisfaction.

Project Highlights

- **Logistic Management System**
 - Developed a full-stack logistics management system to streamline order processing, shipment tracking, inventory control, and reporting across web and mobile platforms.
 - Implemented role-based user authentication and authorization to support workers, drivers, and admins with customized dashboard views.
 - Built RESTful APIs to handle multi-item orders, dynamic inventory updates, shipment tracking, and payment processing using Stripe's server-side integration.
 - Integrated OpenRouteService, Folium, and Geopy to support route optimization and real-time map rendering for drivers, including ETA and live updates.
 - Enhanced user experience with dynamic modals, toast notifications, and Bootstrap 5 for a responsive UI.
 - Utilized Django Signals to automate inventory alerts and trigger email notifications for low stock and successful order placement.
 - Technologies used: Python, Django, Django REST Framework, PostgreSQL, Stripe API, OpenRouteService, Folium, Geopy, Bootstrap 5, JavaScript, HTML/CSS, MySQL, Git/GitHub.
- **Spring Social Media Blog API**
 - Converted a conventional Social Media Blog API into a Spring Boot-based application, concentrating on backend development to improve performance, scalability, and maintainability.
 - Revised the backend architecture to take advantage of Spring Boot's auto-configuration, leading to decreased startup time and more straightforward deployment.
 - Developed RESTful APIs for essential features such as user management, post creation, and comment processing, ensuring secure and efficient data handling.

- Incorporated Spring Data JPA for effective database management, enhancing query performance and data retrieval methods.
- Technologies used: Java, Spring, Spring Boot, Spring Data JPA, RESTful APIs, PostgreSQL, JUnit, Mockito.
- **Book Rental Recommendation System**
 - Performed data cleaning and preprocessing on user, book, and ratings datasets, handling missing demographic values and ensuring consistent formatting across all fields.
 - Converted categorical features (ISBN, user IDs) to numerically ordered indexes and restructured datasets into a sparse matrix for efficient model training.
 - Implemented both user-based and item-based collaborative filtering to identify book preferences from similar users and similar books.
 - Split data into training and test sets, ensuring unbiased evaluation of model performance.
 - Generated book recommendations and evaluated prediction accuracy using Root Mean Squared Error (RMSE) as the key performance metric.
 - Technologies used: Python, Pandas, NumPy, Scikit-learn, Surprise, Matplotlib, Jupyter Notebook, Machine Learning, Collaborative Filtering, RMSE.
- **OpenD**
 - Designed decentralized NFT marketplace that enables users to mint and trade NFTs using the DHOYON crypto token developed by the DSURV application.
 - Implemented smart contracts for minting and managing NFTs, ensuring secure ownership and facilitating the trading of digital assets.
 - Employed the Motoko programming language for server-side development, managing the core functionalities of the NFT marketplace.
 - Developed the client-side of the application utilizing React, HTML, and CSS to provide a seamless user experience for minting and trading NFTs.
 - Integrated DHOYON tokens as the primary currency for transactions within the marketplace, enhancing the token's utility.
 - Technologies used: Blockchain, Smart Contracts, Dfinity, Motoko, Web3.js, React, HTML, CSS.
- **Keeper-App**
 - Constructed a decentralized web application modeled after Google Keep, enabling users to securely store and manage notes on the blockchain.
 - Designed the front-end using React, HTML, and CSS, resulting in a clean and user-friendly interface for notetaking.
 - Developed server-side logic with ICP's Motoko language, facilitating decentralized data storage and management.
 - Incorporated blockchain technology to guarantee secure and tamper-proof storage of notes.
 - Technologies utilized: React, HTML, CSS, ICP, Motoko.

Technical Proficiencies

Advanced: Java, JavaScript, Python, HTML, CSS, Express.js, Bootstrap, Spring Framework, Spring Boot, SQL, PostgreSQL, REST API, Git, GitHub, VS Code, Jupyter Notebook, Maven, JDBC, Javalin, Junit, Mockito, Logback, Spring Web Module, Spring Data JPA Module.

Intermediate: C++, Perl, Motoko, Node.js, jQuery, React.js, Web3, Microservices, AWS, Machine Learning.

Basic: Flexbox, Grid, DOM, Shell/Bash, pgAdmin, Tableau, CLI, Postman, MS Office, Mac OS, Windows OS, Linux OS, Body Parser, Morgan, EJS, Internet Computer, Webflow,

Languages

English | Bengali | Hindi