SHOURAV MANDAL

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Work Experience

Computer Systems Analyst/Programmer | United States Postal Services, Remote   Jun 2023 – Present
- Design and maintain Java-based software to meet business needs.
- Work with analysts and IT teams to translate software requirements into designs.
- Follow coding standards, best practices, and object-oriented principles.
- Write efficient, clean code using design patterns.
- Perform unit tests and debug for software reliability.
- Collaborate with teams to address software defects and issues.
- Participate in code reviews for improved code quality.
- Stay updated on Java development trends and apply them.
- Enhance development processes and project planning.
- Draft technical documentation and updates for computer operations.
- Work with IT specialists for software integration and deployment.

SOS Systems Security Officer | Allied Universal Security Services, Totowa, NJ   July 2022 – July 2023
- Preparation of reports
- Performed periodic checks of the assigned area for vulnerabilities.
- Performing customer service, as well as maintaining security at the site.
- Checking cameras and doing tours to detect suspicious activities.
- Responding to emails and phone calls from clients and supervisors

Intern Developer | SS&C Technology, Manhattan, NY   Jun 2022 – July 2023
- Working in an agile environment, conducting monthly sprints on specific user stories, and conducting research spikes
- Developing proof of concept which led to the deployment.
- Implementing REST API and handlers that communicate with other microservices.
- Constructing configurations of JSON type to help UI rendering.
- Implementing boilerplate code for reference that reduces the development time by 50% or more in case of a similar application.
- Writing documentation for seamless handoff to other developers

NYC Department of Buildings (DOB) | Manhattan, NY   Jan 2022 – Jun 2022
System Production Support Intern
- Provide customer support and technical issue resolution via email, phone, and web.
- Work with Developers and Business Analysts to understand new features being released.
- Build rapport and elicit problem details from non-technical or technical customers.
- Work in a deadline-driven environment collaboratively with the rest of the product team through every step of the software development process.

- Assist in generating training materials and customer-facing documentation.
- Experience working with various Microsoft tools.

Hy-Flex Learning / Support Tech Team at Lehman College   **Aug 2021 – Jan 2022**
Support Tech Team member, Bronx, NY
- Assist faculty in the fall semester with classroom technology and support Hy-Flex learning. Hy-Flex learning brings together in-person and remote students.
- Assigned to support classes in the school of their major or minor to the extent possible technologically.
- Ensure the smooth start-up and shutdown of the camera and microphone technology before and after class. I asked to assist the instructor with technological needs.

Project: Product Tracking & Reporting Webpage

Role: Java Developer

Objective: Enhance the maintainability, efficiency, and user experience of the product tracking and reporting web application.

Key Contributions:

- **Backend Optimization:** Refactored Java code to improve maintainability and efficiency. Implemented best practices in object-oriented design, reducing technical debt and simplifying future code modifications.
- **UI Modernization:** Revamped the front-end using modern JavaScript, HTML, and CSS techniques, leading to a more dynamic and responsive user interface. Enhanced the visual appeal and usability of the webpage, focusing on user-centric design principles.
- **Database Schema Simplification:** Conducted a comprehensive database cleanup by removing the redundant `gpsSystemID` column from the JSPs and eliminating all related references in the application. This resulted in a more streamlined and maintainable database architecture.
- **UI Enhancements:** Integrated the display of event weight within the "Other Information" section of the event grid, improving the accessibility and relevance of data for end-users.
- **Dynamic Caching:** Implemented a dynamic cache-loading mechanism for `DELIVERABILITY_CODE` values. This enhancement ensures that when specific event attribute codes are encountered, the corresponding deliverability code description is automatically populated in the "Other Information" section, optimizing data retrieval and display processes.

Project: Healthcare Data Management Webpage

Role: Java Developer

Objective: Develop and enhance a web-based platform to assist healthcare professionals in managing and querying data efficiently.

Key Contributions:

- **Full-Stack Development:** Updated and expanded both the frontend and backend components of the healthcare data management webpage using Java. Ensured seamless integration between the user interface and backend services, maintaining consistency and reliability across the platform.
- **Database Interaction:** Leveraged pre-existing database structures to implement new functionalities for data retrieval based on user input. Optimized query performance to ensure rapid and accurate data presentation, enhancing the overall user experience.
- **User Interface Design:** Redesigned the homepage to improve navigation and usability. Applied user interface (UI) and user experience (UX) design principles to create a more intuitive and accessible interface, tailored to the needs of healthcare professionals.
- **Data Integrity:** Ensured the secure handling of user inputs and data outputs, adhering to best practices in data validation and sanitization. This reduced the risk of SQL injection attacks and other security vulnerabilities.

Project: SuperAdmin Message Alert Interface

Role: Java Developer

Objective: Develop a robust message configuration system for SuperAdmin users to manage and display alert messages within the web application.

Key Contributions:

- **User Interface Development:** Designed and implemented the "Message Configuration" interface, allowing SuperAdmin users to create, edit, and delete alert messages. The system included fields for title, start date, and end date, with automated message display and removal based on these dates.
- **Role-Based Access Control (RBAC):** Implemented role-based access control, ensuring that only users with SuperAdmin privileges could interact with the message configuration interface. This security measure protected sensitive functionalities from unauthorized access.
- **Audit Trail Implementation:** Developed an audit trail mechanism that records the ACE ID of users who create, edit, or delete messages. This feature enhances accountability by maintaining a detailed history of all modifications made to alert messages.
- **Database Integration:** Integrated the message configuration interface with the backend database, ensuring that all changes were securely stored and retrieved. The system was designed to be scalable and efficient, with minimal impact on database performance.

Technical Skills

Programming	Java, JavaScript, Python, C++, C, SQL
Frameworks	Spring Framework (Spring Boot, Spring MVC, Spring Data JPA), Hibernate, Tkinter
Java Technologies	Spring, Hibernate, Java Beans
Design Patterns	MVC, DAO, Singleton, Factory
Web Technologies	HTML5, CSS3, Bootstrap, SCSS, TailwindCSS, ReactJS, NextJS, AngularJS
Database	MySQL, SQLite, PostgreSQL, Oracle, SQL Developer
Operating System	Windows, Ubuntu, Kali
IDE's	Eclipse, IntelliJ, VSCode
Defect Tracking	JIRA, VersionOne
Version Control	GitHub, GitHub Desktop, Git Bash, Tortoise Git
Testing	JUnit, Mockito, PyTest, Bugzilla
Web Services	REST, Postman
Server	Apache Tomcat, Apache Kafka (Basic Idea)
Build Script	Apache Maven
Methodologies	Agile, Scrum, Test-Driven Development

Education

Bachelor of Science in Computer Science,   **August 2019 – May 2024**
CUNY Lehman College

Master of Science in AI & Machine Learning,   **May 2024 – May 2026**
Colorado State University