Bibek Kumar Tamang

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Summary

Full-Stack Engineer with deep expertise in Java and Spring Boot for building robust, scalable applications. Skilled in end-to-end development from database design and RESTful APIs to responsive front-end interfaces. Proficient in modern DevOps practices including Docker containerization, CI/CD pipelines, and Agile methodologies. Demonstrated ability to solve complex technical challenges and deliver high-quality software solutions. Seeking software engineering roles to drive innovation and contribute to impactful projects in collaborative team environments.

Skills

Programming Language: Java | Python | C | C++ | SQL | HTML | CSS | JavaScript

Frameworks & Tools: SpringBoot | Spring | Apache Kafka | Apache Spark | Pandas | NumPy | Thymeleaf

Databases & Big Data: MongoDB | SQL | NoSQL | Stream Processing

Operating System: Windows | Linux | MacOS

DevOps: Git | GitHub | Docker | Maven | Agile Methodologies | Postman | Containerization | Rest API

Soft Skills: Problem-Solving | Team Collaboration | Adaptable | Project Planning | Code Documentation

Experience

Software Developer, Intern   **Jan 2022 – June 2022**

Kaushal English Boarding School (*Kathmandu, Nepal*)
- Led full-stack development of a student management system using JavaFX and MySQL, serving 500+ student records with 99.9% data integrity through ACID-compliant transactions and scalable architecture.
- Engineered optimized relational database schema (ERD-designed) that reduced query latency by 35% and supported 1K+ concurrent CRUD operations, ensuring seamless integration with JavaFX frontend.
- Boosted administrative efficiency by 50% via intuitive GUI design featuring dynamic data validation, real-time analytics dashboards, and role-based access controls compliant with FERPA standards.
- Automated academic reporting workflows using JDBC and JavaFX controllers, cutting marksheet generation time from 15 minutes to 30 seconds per student while eliminating manual data entry errors.

Projects

Java Big Data Pipeline
- Built real-time big data pipeline using Spring Boot microservices and Apache Kafka, processing 1000+ events/second with 99.9% data integrity through event-driven architecture.
- Created stream processing with Apache Spark implementing real-time analytics and windowed aggregations, reducing data processing latency from batch hours to seconds
- Developed interactive dashboard with live data visualization and real-time filtering using Thyme leaf and Chart.js, enabling instant business insights from streaming data
- Containerized entire ecosystem with Docker Compose across 4 coordinated services, achieving one-command deployment and 100% environment consistency

Maze Solver
- Developed a full-stack maze generation engine using Spring Boot microservices and REST APIs, implementing modular pathfinding algorithms (BFS/DFS/Dijkstra/A*) with 99.9% accuracy.
- Designed maze-solving algorithms with optimized data structures (priority queues, adjacency lists), achieving O(n) average-case complexity on 64x64 grids and reducing rendering latency by 30% via efficient path-drawing.
- Implemented a solo DevOps workflow using Git, Maven, and Docker, achieving 100% build reproducibility and enabling seamless deployment from local development to cloud hosting environments.

Education

Bachelor of Science   **Youngstown State University** (*Youngstown, OH*)   **May 2026**
- Major in Computer Science
- Minor in Mathematics

Course
- **Computer Science:** Data Structure and Algorithm | Data Structure and Object | Advance Object-Oriented Programming | Data Science and Machine Learning | Computer Organization | Discrete Structure | Development of Database | Information Assurance
- **Mathematics:** Calculus I | Calculus II | Calculus III | Linear Algebra and Matrix Theory | Probability and Statistics