AYUSH SHARMA

SOFTWARE DEVELOPER - Data Structures, Algorithms, Java

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SKILLS

- **Programming & Frameworks**: Java, Python, Go, TypeScript, React, Node.js, Spring Boot, Flask, Angular.
- **Web Development & APIs**: Versed in HTML5, CSS, RESTful APIs, Bootstrap, and JavaScript.
- **Database Management**: MySQL, PostgreSQL, Oracle, MongoDB, ElasticSearch, SpannerDB, FirebaseDB.
- **Cloud & DevOps**:AWS, GCP, Azure, Gitlab CI/CD, Docker, Kubernetes, OpenShift, and Jenkins.

WORK EXPERIENCE

Software Developer   **July 2023 – Present**
IBM   *Ontario*

- Implemented back-end architectures for IBM QRadar, utilizing Java features such as concurrency control, thread-safe collections, and RESTful API for hybrid cloud transition, enhancing system efficiency by 80%.
- Developed front-end components using React.js with TypeScript and Redux for state management, optimizing UI/UX workflows to ensure consistency across devices and enabling authentication for 100% of user accounts.
- Automated complex operational tasks by scripting Python-based solutions, incorporating libraries like Selenium for testing, Pytest for validation, and Flask for API creation, streamlining deployment pipelines by 95%.
- Facilitated CI/CD pipelines using Docker for containerization, Kubernetes for orchestration & Jenkins for builds & deployments, integrating security scans via SonarQube & Prometheus, achieving a 40% reduction in errors.
- Formulated performance tuning & query optimization including SpannerDB, PostgreSQL, MongoDB, Cassandra & FirebaseDB, applying index restructuring to improve read/write speeds by 50% in AWS, Azure & GCP.
- Partnered with teams across 4 regions to integrate AI predictive analytics models into Watsonx.ai, leveraging MLOps like TensorFlow Extended and MLflow, enhancing threat detection by 25% improving efficiency by 30%.
- Engineered a microservices architecture using Spring Boot and Node.js, enabling communication via messaging with RabbitMQ and Kafka, achieving a 35% improvement in system scalability and a 20% reduction in latency.
- Designed an authentication system using OAuth 2.0 and JWT, integrating multi-factor authentication and role-based access controls, increasing data protection and reducing unauthorized access incidents by 30%.

PROJECTS

User Management API
Role: Backend Developer

- Facilitated a Spring Boot-based REST API framework for user management, employing microservices, advanced dependency injection, and multi-layered data validation to ensure code reusability, improving speed by 30%.
- Automated CI/CD pipelines using GitHub, incorporating DevSecOps practices such as SonarQube for code quality and vulnerability scans, artifact management via GitHub Packages, reducing deployment failure by 25%.
- Implemented JWT authentication protocols, integrating role-based access control (RBAC) with granular permissions management, enhancing endpoint security and achieving zero unauthorized access incidents.
- Optimized database interactions using PostgreSQL's advanced query planning techniques, including index-only scans, partition pruning, and the execution of stored procedures through JPA Criteria API.

Portfolio Website
Role: Full Stack Developer

- Architected a responsive portfolio website using Next.js, leveraging server-side rendering (SSR) and static site generation (SSG) techniques to achieve optimized page load times, increasing SEO performance by 20%.
- Integrated real-time data synchronization through Firebase Realtime Database APIs, employing security rules, data sharding, and access policies to ensure high-availability updates for showcased project content.
- Streamlined deployment workflows using Netlify CI/CD pipelines with automated Lighthouse audits, employing web performance optimization techniques such as lazy loading, code splitting, achieving a 95% accessibility score.
- Developed feature-rich & engaging UI components utilizing React.js with TypeScript, incorporating CSS3 animations, GSAP for interactions & React Context API for state management, enhancing engagement by 35%.

EDUCATION

Advanced Diploma in Computer Science   May 2019 – March 2022
Algonquin College, Ottawa, Ontario, Canada

CERTIFICATIONS

- **Machine Learning with Python**
- **Software Engineer (by HackerRank)**
- **Java Developer (by W3schools)**

ACHIEVEMENTS

- **Watsonx AI Challenge** by IBM - Leveraging machine learning frameworks & AI model optimization techniques