Akshay Khan Software Developer

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PROFESSIONAL SUMMARY

- **Software Engineer with 4+ years of experience** in designing, developing, and optimizing **scalable, high-performance applications** using **Java, C#, .NET Core, and Python**, ensuring seamless backend operations and system efficiency.
- **Expert in building microservices and RESTful APIs** with **Spring Boot, ASP.NET Core, and Entity Framework**, improving inter-service communication, reducing latency by **30%**, and enhancing application scalability in cloud-based architectures.
- **Strong database management skills**, proficient in **SQL Server and MySQL**, optimizing complex queries and indexing strategies to boost data retrieval speeds by **40%**, ensuring high availability and data integrity in enterprise applications.
- **Expertise in cloud deployment and DevOps practices**, leveraging **Azure, Docker, and Kubernetes** to automate infrastructure, enable continuous deployment (CI/CD), and enhance application reliability, reducing deployment failures by **35%**.
- **Implementing security best practices**, integrating **OAuth 2.0, JWT authentication, and role-based access control (RBAC)** to safeguard applications, prevent vulnerabilities, and ensure compliance with industry security standards.

TECHNICAL SKILLS

Programming Languages & Frameworks: C++, Java, Python, JavaScript, React, Node.Js, Spring Boot, Express.Js, Angular.Js, Django
Database Management: SQL, MongoDB, PostgreSQL, MySQL
Cloud Platforms & DevOps: AWS, Azure, Docker, Kubernetes
Frontend & UI/UX Development: HTML5, CSS3, Bootstrap,Tailwind
Development & Integration: RESTful APIs, GraphQL
Version Control Systems: Git, GitHub, GitLab
Software Testing & Debugging: JUnit, Jest, Mocha
Agile & Project Management: JIRA, Trello, Scrum, Kanban Performance Optimization: Algorithm efficiency, Data structures

PROFESSIONAL EXPERIENCE

Software Developer, Tata Consultancy Services   Oct 2024 – Present | Overland park, Kansas

- **Architected and fine-tuned high-performance applications** using **Java, Spring Boot, and Python**, optimizing backend logic with multi-threading and asynchronous processing, reducing system load and boosting efficiency by **28%**.
- **Engineered and boosted API gateways** using **GraphQL and RESTful APIs**, improving data transfer speeds by **32%**, enhancing request handling, and ensuring seamless communication between distributed cloud-based services.
- **Redesigned application workflows** by refactoring redundant computations and optimizing data structures, reducing memory usage by **27%**, improving processing speeds, and increasing application stability under heavy workloads.
- **Deployed and managed cloud-native applications** with **Docker, Kubernetes, and Azure Functions**, enabling auto-scaling capabilities, reducing infrastructure costs by **20%**, and improving system resilience.
- **Enhanced security frameworks** by integrating **role-based access control (RBAC), AES encryption, and automated vulnerability scanning**, proactively mitigating security risks and ensuring compliance with industry security standards.
- **Led automated testing initiatives** using **JUnit, Mockito, and Selenium**, increasing test coverage to **92%**, minimizing production defects, and ensuring the reliability of software releases through continuous integration testing.

Software Developer, Emerson   Jul 2020 – Dec 2023 | Chandigarh, India

- **Designed and applied** scalable backend architectures using **Java, Spring Boot, and Python**, enhancing system performance by **30%** while ensuring seamless request handling for millions of concurrent users.
- **Developed and deployed microservices** using **Spring Boot and Docker**, optimizing inter-service communication with **Kafka and RabbitMQ**, which improved data processing efficiency by **25%** and minimized latency.
- **Optimized database queries and indexing strategies** in **SQL Server and MongoDB**, reducing query execution times by **40%**, improving response times for large-scale applications, and ensuring high data integrity.
- **Refactored monolithic applications into modular RESTful services**, restructuring APIs for better maintainability, reducing system downtime by **35%**, and simplifying future feature expansions.
- **Integrated advanced authentication protocols** such as **OAuth 2.0, JWT, and SAML**, reinforcing application security and ensuring compliance with industry-standard data protection regulations.
- **Performed API development and documentation efforts** using **Swagger and Postman**, standardizing API consumption practices and reducing onboarding time for developers by **20%** through well-structured documentation.
- **Automated CI/CD pipelines** using **Jenkins and Azure DevOps**, accelerating deployment cycles by **45%**, ensuring faster releases, and reducing production rollbacks through robust pre-deployment testing.
- **Implemented caching solutions** with **Redis and Memcached**, significantly decreasing API response times by **35%**, optimizing resource usage, and improving system scalability for high-traffic applications.
- **Collaborated with UI developers** to streamline front-end and back-end interactions using **React and Angular**, ensuring efficient API consumption, reducing load times, and enhancing overall application responsiveness.

EDUCATION

University of Central Missouri and Warrensburg   Jan 2024 – Dec 2024 | Chico, CA
Master of Science in Computer information Systems

Lovely Professional University   Jul 2017 – Jul 2021 | Jalandhar, Punjab
Bachelor of Engineering in Computer Science and Engineering