

Sandy Woods, Jr.
Full Stack Software Engineer

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PROFESSIONAL SUMMARY

Accomplished Full Stack Developer with over a decade of experience designing and delivering enterprise-grade web and cloud-based applications. Proven ability to architect and implement scalable, secure, and high-performing software solutions across multiple industries. Strong background in both front-end and back-end development, with a focus on system integrations, automation, and cloud deployment.

TECHNICAL SUMMARY

Expert in developing and deploying distributed applications using Java, Spring Boot, React, Angular, and Node.js. Experienced in architecting RESTful APIs, designing microservice architectures, and managing full SDLC pipelines using CI/CD practices. Adept at containerization and orchestration with Docker and Kubernetes, and well-versed in AWS cloud infrastructure. Strong understanding of software security, data modeling, and API integration. Skilled in leveraging tools like Jenkins, Terraform, and Git for scalable and automated deployments.

TECHNICAL SKILLS

Java, JavaScript, Python, C#, SQL, HTML, CSS, Spring Boot, React, Angular, Node.js, Express.js, Django, MySQL, PostgreSQL, MongoDB, Oracle, Cassandra, AWS, Docker, Kubernetes, Jenkins, Terraform, CI/CD, Git, JIRA, Maven, Gradle, Postman, Swagger, Linux, Microservice Architecture, API Development, Security Best Practices, Automation, Cloud Integration

PROFESSIONAL EXPERIENCE

Internal Revenue Services (IRS) | Full Stack Developer | Oct 2022 – Present

- Designed and built Spring Boot-based microservices applications from scratch, implementing service discovery using Netflix Eureka, developed API Gateways for routing, load balancing, and cross-cutting concerns, in addition to designing their relational database schemas, while allowing for said services to be independently deployed
- Implemented RESTful APIs with proper request validation, error handling, and DTO mapping
- Used Spring Data JPA / Hibernate for database persistence and ORM
- Built a centralized configuration server using Spring Cloud Config
- Enabled inter-service communication via REST
- Applied clean architecture principles and separation of concerns
- Implemented JWT-based authentication and authorization
- Secured microservices endpoints using Spring Security
- Integrated authentication flows between frontend and backend services
- Executed end-to-end SDLC (design, development, unit/system testing), ensuring code quality and alignment with user stories and acceptance criteria.
- Implemented CI/CD pipelines using Jenkins and Docker, which aided in reducing deployment time by 60% (from hours to minutes).
- Ensured data consistency across distributed services
- Built a React-based frontend to consume backend microservices
- Integrated frontend with secured REST APIs
- Implemented client-side routing, state management, and authentication handling
- Designed responsive UI components for service application workflows
- Wrote unit and integration tests for backend services using JUnit
- Containerized microservices using Docker
- Managed multi-service environments with Docker Compose
- Configured environment-specific application properties
- Applied CI/CD-friendly project structure and build processes
- Tested REST APIs and service interactions
- Debugged and resolved issues across distributed services
- Used Git for version control and collaborative development
- Followed REST API design best practices
- Applied microservices design patterns (gateway, config server, service discovery)
- Worked with JSON, HTTP, and distributed systems concepts
- Used Git for version control and collaborative development
- Applied microservices design patterns (gateway, config server, service discovery)
- Worked with JSON, HTTP, and distributed systems concepts
- Architected and deployed scalable enterprise applications to modernize taxpayer service platforms.
- Designed RESTful APIs and microservices using Java and Spring Boot, ensuring modularity and efficient data communication.
- Developed front-end interfaces and components with React and Angular to enhance user engagement and accessibility.
- Implemented continuous integration pipelines using Jenkins and automated deployments with Docker and Kubernetes.
- Utilized AWS ECS, EC2, and S3 to manage highly available applications and cloud-based infrastructure.
- Optimized the processes of backend web services by improving API performance, caching mechanisms, and SQL query efficiency.
- Integrated SonarQube for code quality assurance and static analysis within the CI/CD pipeline.
- Developed secure authentication and authorization protocols following OAuth 2.0 and JWT standards.
- Collaborated with cross-functional teams to deliver stable, compliant, and production-ready systems.
- Improved the average API response time by as much as 30% while upgrading and optimizing previously built features when developing RESTful APIs.
- Optimized application flow, resulting in a decrease in latency by as much as 60%.
- Optimized database queries and indexing strategies, leading to a 50% reduction in data retrieval times.
- Enhanced app performance by 30% through code optimization and refactoring legacy systems using Spring Boot.
- Improved system efficiency by 40% by refactoring legacy code.

Connoisseur Design Firm | Full Stack Developer | Dec 2017 – Sept 2022

- Led the design and implementation of full-stack e-commerce solutions for luxury retail clients including Nordstrom Rack and Dillard's.
- Built production-grade applications using React, Spring Boot, and PostgreSQL with AWS-based cloud deployment.
- Integrated real-time inventory systems, AI-driven recommendations, and advanced analytics dashboards.
- Developed secure REST APIs supporting high transaction volumes and optimized data flow using Hibernate and JPA.
- Automated deployment pipelines with Ansible and Jenkins, enabling continuous delivery and version management.
- Built scalable microservices using Docker and Kubernetes, optimizing performance and fault tolerance.
- Engineered data persistence solutions with SQL and NoSQL databases for multi-tenant cloud systems.

- Implemented front-end testing with Selenium and backend testing with Mockito and TestContainers.
- Improved UI/UX workflows with modern JavaScript frameworks, focusing on accessibility and responsive design.
- Improved application performance by 50% through optimizing Hibernate queries and migrating legacy systems to Spring Boot.
- Achieved 99.9% uptime for a high-traffic e-commerce platform by implementing a resilient microservices architecture.
- Designed and developed a production-style backend application using Java and Spring Boot, following layered architecture (Controller, Service, Repository)
- Designed and implemented Continuous Integration (CI) pipelines to automate code build, test, and deployment processes
- Applied CI/CD best practices to reduce integration conflicts and improve release reliability
- Implemented Pipeline-as-Code using Jenkinsfile stored in version control
- Automated end-to-end build workflows triggered by source code commits
- Installed, configured, and administered Jenkins across Linux, Windows, and macOS environments
- Developed Declarative and Scripted Jenkins Pipelines using Groovy-based DSL
- Configured Jenkins agents (master/slave architecture) for distributed and cross-platform builds
- Managed Jenkins plugins for SCM, build tools, testing, Docker, and cloud integrations
- Implemented environment variables, tool configurations, and pipeline stages (Build, Test, Deploy)
- Automated Maven builds and dependency resolution within Jenkins pipelines
- Packaged and archived build artifacts (JAR/WAR) as part of CI workflows
- Managed build tools including Maven, Ant, Git, and Docker within Jenkins
- Integrated Jenkins with Git-based version control systems
- Configured SCM polling and webhook-based triggers for automated builds
- Implemented commit-based build execution to support rapid development cycles
- Integrated Jenkins with Nexus Repository Manager for artifact storage and retrieval
- Published and versioned build artifacts in Nexus repositories
- Managed repositories for Maven, npm, Docker images, NuGet, apt, and yum packages
- Integrated static code analysis into CI pipelines using SonarQube
- Implemented automated vulnerability scanning and code quality checks
- Enforced coding standards and best practices using tools such as Checkstyle, Cobertura, and OWASP scanners
- Configured automated job execution using Cron-based scheduling
- Implemented downstream job chaining and dependency-based builds
- Triggered Jenkins jobs remotely using REST APIs, API tokens, and authentication CRUMBs
- Implemented Jenkins security with role-based access control (RBAC)
- Managed users, permissions, credentials, and job-level authorization
- Integrated Jenkins authentication with LDAP for enterprise environments
- Configured Jenkins nodes with required OS-level permissions and build tools
- Executed remote scripts, commands, and automated tests on Jenkins agents
- Managed environment variables and build metadata across pipeline stages
- Built RESTful APIs supporting CRUD operations, pagination, validation, and standardized error handling.
- Implemented Spring Data JPA / Hibernate for database persistence, including entity relationships and repository patterns.
- Integrated authentication and authorization using Spring Security and JWT-based access control.
- Designed relational database schemas and worked with SQL databases (e.g., MySQL/PostgreSQL).
- Used DTOs and model mapping to separate API contracts from persistence logic.
- Tested APIs using Postman collections and handled request/response validation.
- Managed project source control with Git and GitHub, following clean commit and repository practices.
- Configured application properties and profiles for different environments (dev / prod).
- Applied best practices for exception handling, logging, and API design.

Duval County Public Schools | Full Stack Developer | Jan 2013 – Nov 2017

- Developed educational applications to manage student information, attendance tracking, and progress reporting
- Designed RESTful services to integrate multiple district systems and improve data accuracy across platforms.
- Built dynamic and responsive front-end interfaces using jQuery, HTML5, and CSS3.
- Enhanced database performance by optimizing queries and stored procedures in MySQL.
- Streamlined deployment operations through Gradle and Jenkins, improving reliability and speed.
- Collaborated in Agile development cycles, implementing new features and bug fixes in production environments.
- Implemented Spring MVC and Hibernate frameworks to maintain scalability and clean separation of concerns.

Tanner Medical Center | Full Stack Developer | Dec 2011 – Nov 2012

- Designed and developed early-stage data management systems to support clinical research.
- Created database schemas and ETL pipelines using MySQL and Hibernate to manage laboratory data.
- Implemented backend logic in Java for processing experimental results and automated data ingestion.
- Supported research analytics by integrating APIs for real-time data visualization and reporting.

CREDENTIALS

- Bachelor of Arts in Chemistry – University of West Georgia, July 2012
- AWS DevOps Certified
- CompTIA Security+ Certified
- MBI Clearance

INTERESTS:

Art, Education, Engineering, Research, Fitness, Robotics, Drone Photography, 3D Printing, and Continuous Learning.