BRIAN MUGALU

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FULL STACK (JAVA & REACT)

Skilled full stack developer with over 5 years of experience developing and implementing highly scalable and high-performance web applications using Java and ReactJS, primarily in the Financial Services and IT Consultancy industry. I have successfully contributed to developing innovative solutions for companies with over 20 million user bases. Possess a solid foundation in Java, Spring Framework, CI/CD pipelines, AWS (Amazon Web Services), GCP, SQL, NOSQL, and Agile Methodologies. I have expertise in building scalable systems following microservices architecture. Strong at problem-solving, quick learner with a commitment to writing clean, well-tested, and efficient code.

CI/CD • Object Oriented Programming • SOLID • Design Patterns   Microservices • Service Oriented Architecture (SOA) Domain Driven Design • Test Driven Development • Aspect Oriented Programming • Concurrency and Multithreading • Enterprise Architecture • Containerization

Languages: Java, JavaScript, SQL, Go
Web: HTML, CSS3, JSON, HTTP, WebSocket, NodeJS, XML, YAML
Web Services: GraphQL, REST, SOAP
Web/App Servers: Apache Tomcat, Nginx, Asynq + Redis
Frameworks: Spring Boot, Spring JPA, Spring Security, Spring Cloud, Hibernate, JUnit, Express, Bootstrap
Databases: MYSQL, MongoDB, Postgres, Redis, Memcached, Oracle, DB2, SQL Server
Design Patterns: Singleton, Composite, Decorator, Template Method, Command, Observer, Façade, Visitor, Strategy, DDD, CQRS and Event Sourcing, SAGA, Mediator, Singleton, Circuit Breaker
SDLC: Agile,Scrum
Tools: Visual Studio Code, Maven, Gradle, Jenkins, Kafka, Docker, UML, Open Swagger, Redux Toolkit, Kubernetes, Git, Jira, Prometheus, Grafana, GitLab, GitHub, GitHub Actions, Eclipse, IntelliJ, Git, GitHub, MongoDB Atlas, Azure, Postman,AWS
Platforms: Linux, Windows

PROFESSIONAL EXPERIENCE

*CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **master's degree in computer science** (Available for full-time, W-2 employment).*

STANBIC BANK, Kampala, Uganda • 12/2022 – 11/2023
Commercial bank in Uganda.

Software Engineer
Enhanced banking application performance.

- Enhanced query response by 20% and increased customer engagement by 40% by piloting FlexiPay restructuring using CRQS and SAGA patterns with Kafka Message Queue.
- Improved the existing web application by redesigning, restructuring, and migrating global management using Redux Toolkit, resulting in a 90% increase in customer active time on the site and a 75% improvement in user retention rates.
- Utilized Redis as an in-memory data store for caching frequently accessed data in the banking applications, resulting in a 40% improvement in response times, enhancing overall system performance.
- Implemented Apache Kafka for distributed messaging and real-time data streaming, which enabled efficient processing and analysis of large transactional data volumes, leading to a 50% improvement in data pipeline throughput and reduced latency in data processing.
- Improved existing authentication and authorization workflows using Spring Security, which enhanced application security and ensured secure access control, reducing security incidents by 60% and increasing user authentication efficiency by 80%.
- Implemented Jenkins for continuous integration and continuous deployment (CI/CD), along with Docker for containerization, Kubernetes for orchestration, and Ansible for seamless configuration management.

- Implemented batch processing using CompletableFuture in Java, leading to improved performance and scalability in handling large data sets, and reducing processing time by 35%.

Technologies Used: *Java, JUnit, Mockito, Redis, AWS (Amazon Web Services), Apache Kafka, ReactJS, Docker, Kubernetes, Jenkins, Ansible*

ASIGMA Advisory, Kampala, Uganda • 09/2018 – 11/2022
Advisory and investment firm.

Software Developer
Built Services for development.

- Transformed a monolithic application into a suite of microservices using Spring Boot, enhancing scalability and maintainability, and deployed these services on AWS, leading to a 60% improvement in system efficiency.
- Developed and implemented a micro front-end architecture using React, allowing independent deployment of UI components and enhancing scalability and maintainability. This approach led to a 40% reduction in deployment times, a 30% increase in development efficiency, and improved user experience through more frequent updates and feature releases.
- Incorporated Memcached for caching, which improved data retrieval speeds by 60% and reduced database load by 50%, leading to a 45% increase in overall application performance.
- Integrated a logging and monitoring system by utilizing Prometheus, resulting in improved data report generation, facilitating decision making and information tracking.
- Utilized RabbitMQ for message brokering to meet the application's lower throughput and simpler setup requirements, reducing messaging latency and system complexity.
- Implemented batch processing using CompletableFuture in Java, leading to improved performance and scalability in handling large data sets, and reducing processing time by 50%.
- Configured Nginx as a reverse proxy and load balancer, enhancing application reliability and performance, resulting in an improvement in load handling and decreased server response times.
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Technologies Used: *Java, MYSQL, MongoDB, Memcached, Nginx, RabbitMQ, Prometheus, React*

ACADEMIC PROJECT

Maharishi International University (2024) – Real Estate platform: Implemented a robust real estate platform using microservices architecture with advanced searching using geolocation. Utilized Java, Spring Boot, Docker, Kubernetes, RabbitMQ, Prometheus, Zipkin, Postgres, and GitHub.

Maharishi International University (2024) – Ecommerce Platform: Implemented a robust e-commerce platform for customer support, product search, cart management, and report generation. Contributed to a 4-person team in building knowledge-based and vector store features for similarity search, critic, learning, and report modules. Utilized Java, Spring Boot, and GitHub for project development.

EDUCATION

Master of Science in Computer Science
(In progress via distance education; expected completion 06/2026)
Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Advanced Software Development, Web Application Architecture, Web Application Programming

Bachelor of Science in Civil Engineering
Makerere University, Kampala, Uganda (2022)