

Jean Luc Tuyishime

Software Engineer with **6+** years of experience crafting dynamic and scalable web applications. Proficient in **(Typescript, Node, React, Websocket)**, With a strong focus on test-driven development (TDD) and Continuous integration (CI). Excellent communication and collaboration skills, and a passion for learning and adapting to new technologies.

luctunechi45@gmail.com

+250784421255

[Linkedin](#)

[GitHub](#)

[dev.to](#)

WORK EXPERIENCE

Exuus

Senior Full Stack Engineer

Kigali, (Remote)

Feb 2025 - Dec 2025

1. Led the development of the NIRDA MIS (Management Information System) platform for the National Industrial Research and Development Agency in Rwanda, implementing a comprehensive full-stack solution.
2. Designed and implemented a robust microservices architecture using Node.js and TypeScript for the backend, facilitating scalability and maintainability.
3. Set up SSL/TLS termination in Nginx to ensure secure communication between clients and the server.
4. Utilized Nginx's caching capabilities to improve response times for static content.
5. Developed the frontend using React.js and TypeScript.
6. Built reusable components to ensure consistency and maintainability across the application.

TechClick

Senior Full Stack Engineer

Kigali, (Remote)

April 2024 - Jan 2025

7. Led the development of the NIRDA MIS (Management Information System) platform for the National Industrial Research and Development Agency in Rwanda, implementing a comprehensive full-stack solution.
8. Designed and implemented a robust microservices architecture

TECHNOLOGIES

Skills

TypeScript, React, Node, Nest, Next, Microservices, Vue.

Selenium

Other

MongoDB, Docker, RabbitMQ, AWS (EC2, S3, Route53), Heroku, REST API, GraphQL, Firebase, Coveralls, Maintainability, AWS (SES), JIRA, Nginx.

Achievements

PlusOneX

Implemented new features that improved application performance by 60% by doing refactoring and unit and Integration tests, resulting in increased user satisfaction

Hepta Analytics

Brought the idea of project management and software development approach (Agile). Enhanced user satisfaction by identifying and troubleshooting multiple bugs, directly addressing 56 customer complaints and improving the app's overall rating by 96%

using Node.js and TypeScript for the backend, facilitating scalability and maintainability.

9. Set up SSL/TLS termination in Nginx to ensure secure communication between clients and the server.
10. Utilized Nginx's caching capabilities to improve response times for static content.
11. Developed the frontend using React.js and TypeScript.
12. Built reusable components to ensure consistency and maintainability across the application.
13. Implemented memoization techniques to optimize component rendering and improve overall performance.
14. Designed and implemented the backend infrastructure to process real-time messages between citizens and NIRDA.
15. - Integrated the Irembo payment gateway.
16. Implemented secure payment processing for NIRDA lab test submissions, allowing citizens to make payments directly through the platform.
17. Ensured compliance with local financial regulations and implemented robust error handling for payment transactions.
18. Developed protection against SQL injections to safeguard sensitive citizen and organizational data.
19. Wrote unit and integration tests, achieving over 90% code coverage.
20. Implemented continuous integration and deployment pipelines to ensure rapid and reliable releases.

Andela

I had the privilege of mentoring junior developers. Leading to improved code quality and increased efficiency in the development process.

plusOneX

Senior Full Stack Engineer

South Africa, (Remote)

MAR 2022 - Feb 2024

1. Led the front-end development of the FairPay digital wallet, a comprehensive financial solution for commuters.
2. Spearheaded the development of FairPay, a comprehensive digital wallet solution for commuters, employing a microservices architecture using Node.js and TypeScript on the backend.
3. Implemented RabbitMQ for efficient message queuing to process real-time notifications, ensuring seamless communication between microservices and instant updates for users.
4. Integrated the PayFast payment gateway, enabling secure and efficient financial transactions for wallet top-ups and payments.
5. Utilized Helmet to enhance the security of the application by setting various HTTP headers.
6. Implemented key features including user registration, wallet top-up, airtime purchase, and peer-to-peer transfers.
7. Wrote comprehensive integration tests using Jest and Enzyme to ensure code quality and reliability.
8. Set up comprehensive data monitoring systems to track application performance, user behavior.

Hepta Analytics

FullStack Engineer

Rwanda, kigali

NOV 2020 - FEB 2022

1. Architected and developed a sophisticated e-commerce platform using a microservices architecture with Node.js and TypeScript:
2. Designed and implemented core microservices including users-service, product-service, checkout-service, and order-service, ensuring scalability and modularity.
3. Utilized GraphQL as an API gateway and proxy, optimizing inter-service communication and providing a unified interface for frontend consumption.
4. Integrated the Irembo payment gateway into the backend, enabling seamless payments through various telcos including MTN and Airtel,

significantly expanding payment options for users across different mobile networks.

5. Implemented comprehensive data monitoring and logging systems:
6. Tracked and analyzed user activities across the platform, including product ordering, payment processing, and checkout completion.
7. Set up alerting mechanisms for critical system events and potential anomalies.
8. Integrated the solo dashboard chatbot, allowing customers to place orders in real-time and enhancing user engagement.
9. Developed a robust frontend using React.js and TypeScript:
10. Implemented Redux for efficient state management, creating separate stores for users, products, and payments to ensure clear data flow and easy management of application state.
11. Designed and built reusable components to maintain consistency across the application.
12. Ensured high code quality and reliability:
13. Wrote comprehensive unit tests to protect against bugs and ensure system stability.
14. Followed test-driven development (TDD) practices to maintain code integrity throughout the development lifecycle.
15. Conducted thorough investigation of problem areas and adhered strictly to the software development lifecycle, ensuring timely delivery of high-quality solutions.
16. Created extensive documentation including flowcharts, layouts, diagrams, and charts to clearly communicate system architecture and workflows to both technical and non-technical stakeholders.
17. Maintained clean, well-commented code and adhered to best practices in software development, facilitating easy maintenance and future enhancements.
18. The project significantly improved the e-commerce capabilities of the platform, processing thousands of transactions daily with high reliability, and received praise for its intuitive user interface and robust backend architecture.

Andela (Remote)

USA, New York

FullStack Engineer

MAR 2019 - APR 2020

1. Developed a sophisticated content creation and sharing platform, enabling users to write, publish, and distribute their content:
2. Implemented the backend using Node.js and Express.js, leveraging TypeScript for improved code quality and maintainability.
3. Utilized Helmet.js to enhance application security by setting various HTTP headers, protecting against common web vulnerabilities.
4. Integrated PostgreSQL as the primary database, using Sequelize ORM for efficient data modeling and querying, ensuring type safety and reducing the risk of SQL injection.
5. Designed and developed a responsive and intuitive frontend:
6. Utilized React.js with TypeScript for building a robust and type-safe user interface.
7. Implemented Redux for state management, creating a predictable state container for all application data.
8. Developed reusable React components to ensure consistency across the application and improve development efficiency.
9. Implemented comprehensive testing strategies:
10. Wrote extensive integration tests for the backend using Mocha and Chai, ensuring the reliability of API endpoints and data flow.
11. Developed unit tests for the frontend using Jest and Enzyme, achieving high test coverage for React components and Redux actions/reducers.
12. Integrated Coveralls for continuous monitoring of test coverage, maintaining a coverage threshold of over 90%.
13. Established a robust CI/CD pipeline:
14. Utilized GitHub Actions for continuous integration, automatically running tests and linting on each pull request.
15. Implemented automated deployments to staging and production environments upon successful merges to designated branches.
16. Focused on code quality and best practices:
17. Adhered to Airbnb's JavaScript Style Guide to maintain consistent

coding standards across the team.

18. Conducted regular code reviews to ensure code quality and knowledge sharing among team members.
19. Implemented error logging and monitoring using tools like Sentry for proactive issue detection and resolution.
20. Contributed to project management and team collaboration:
21. Participated in Agile ceremonies, including daily stand-ups, sprint planning, and retrospectives.
22. Mentored junior developers, providing guidance on best practices in TypeScript, React, and Node.js development.

EDUCATION

Gitwe Adventist College, Degree (Computer Science)

Rwanda, Kigali

2010 - 2012

PROJECTS

[Link to projects](#)