OLIVIER KARERA

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PROFESSIONAL PROFILE

I am a freelance Senior Software Engineer & Technical Consultant who partners with clients to transform visionary ideas into high-impact, scalable, and reliable software solutions. By combining advanced technical expertise with a passion for mentoring and innovation, I deliver projects that not only meet today's needs but also pave the way for sustainable growth. I empower businesses to overcome technical challenges, optimize operations, and create engaging user experiences —ensuring you receive measurable value and a trusted technology partner who truly listens to your vision.

CORE COMPETENCIES

- **Technical Leadership:** Mentored teams to adopt TDD/CI-CD practices, boosting productivity by 25–35% and reducing production bugs.

- **Scalable Architecture:** Designed systems capable of handling 10,000+ concurrent users with 99.9% uptime.

- **AI-Driven Innovation:** Developed intelligent automation tools that reduce delivery time by up to 50%.

- **Client-Centric Solutions:** Delivered platforms offering 30–45% faster performance than competitors, ensuring seamless user experiences and tangible business impact.

PROFESSIONAL EXPERIENCE

Backend Developer Lead

Comprehensive Software Resources (CSR), Kigali, Rwanda

January 2025 – Present

- Spearheaded backend architecture for enterprise applications using modern frameworks, improving API response times by 40% and ensuring scalable solutions for 10,000+ users.

- Implemented automated CI/CD pipelines that reduced deployment cycles from 2 days to 3 hours, enabling rapid feature delivery and efficient client feedback loops.

- Optimized PostgreSQL databases for hospital management systems, cutting report generation times by 75% and allowing administrative teams to focus on critical tasks.

- Mentored 5 developers in code quality standards and TDD, reducing production bugs by 35% and strengthening overall system reliability.

Software Engineer

Comprehensive Staffing Resources Ltd, Kigali, Rwanda

January 2023 – December 2024

- Engineered secure payment integrations (PayPal, Stripe) resulting in a 28% higher transaction success rate and directly increasing client revenue.

- Reduced security vulnerabilities by 45% through rigorous code reviews and Test-Driven Development practices.

- Streamlined DevOps workflows, shortening release cycles by 50% while improving collaboration and overall product quality.

- Collaborated with cross-functional teams to integrate backend systems with responsive front-end applications, achieving a unified and engaging user experience.

Front-End Developer (Internship)

Solvit Africa, Kigali, Rwanda

May 2022 – August 2022

- Developed responsive React.js interfaces that boosted platform adoption by 40% for NGOs, enhancing overall user engagement.

- Integrated backend APIs to reduce data latency by 35%, delivering a smooth and efficient experience for over 5,000 users.

- Contributed to the Rwandan Women Cooperatives Connection project, where effective UI design led to a significant increase in platform usage.

HIGHLIGHTED PROJECTS

Quin AI (2024) – Backend Lead Developer (Freelance)

- Architected a scalable REST API with an integrated PayPal payment gateway achieving a 99.8% transaction success rate and zero disputes over 6 months.

- Established comprehensive documentation and automated CI/CD pipelines, reducing deployment time by 65% and ensuring long-term reliability.

Techwise Website / AI Chatbot (2023–2024) – Full-Stack Developer (Freelance)

- Developed an end-to-end solution featuring a custom AI chatbot that resolved 70% of user queries automatically, cutting client service costs by 60%.

- Increased user engagement by 45% through intelligent assistance and an intuitive, user-friendly design.

Huzahills Project (2023) – Backend Developer (Freelance)

- Constructed a robust backend system capable of handling over 10,000 concurrent users.

- Implemented real-time communication using websockets, reducing response latency by 80% and ensuring uninterrupted service during peak periods.

House Renting Project (2023–2024) – Full-Stack Developer (Freelance)

- Developed a comprehensive rental platform with 30% faster property search compared to competitors.

- Integrated secure payment gateways and third-party APIs, delivering a seamless and engaging experience for users.

Hospital Management Systems (2024) – Backend Developer

- Optimized complex database queries and introduced critical indexing, reducing report generation times by 75%.

- Developed KPI tracking systems that improved hospital performance metrics by 30%, empowering staff to focus on patient care.

Emergency Community Network (2025) – Lead Developer (Freelance)

- Led the implementation of a Test-Driven Development approach, achieving 90% test coverage and ensuring maintainable, scalable architecture.

- Applied design patterns to deliver critical emergency response features that reduced response times by 45%.

Rwandan Legal LLM Assistant (2025) – AI Developer (Freelance)

- Fine-tuned an Ollama-based large language model to serve as a legal assistant, reaching 85% accuracy in contextually relevant legal responses.

- Reduced consultation costs by 40% for NGOs by automating repetitive legal inquiries.

Market Place (2025) – Full-Stack Developer (Freelance)

- Engineered an online marketplace featuring secure payment processing and real-time inventory management, boosting overall operational efficiency.

Car Selling Project (2025) – Backend Developer (Freelance)

- Created an advanced car marketplace with automated CI/CD pipelines that facilitated continuous deployment and rapid updates.

Mobile Money Tracker (2025) – Mobile Developer (Freelance)

- Developed a cross-platform mobile application for tracking financial transactions, enhanced with AI-powered insights that simplify budget management.

E-commerce for Clothes (2024) – Front-End Developer (Freelance)

- Built an e-commerce platform with personalized recommendations and a seamless checkout experience, elevating the customer shopping journey.

K-Plush Furniture Store (2025) – Full-Stack Developer (Freelance)

- Developed an online furniture store featuring 3D product visualization and integrated order management, significantly increasing customer engagement.

Rwanda Crop Yield Prediction (2025) – AI & Backend Developer (Freelance)

- Deployed an AI-powered platform to predict crop yields by analyzing historical data, weather patterns, and soil conditions, providing farmers with actionable insights to optimize production.

TECHNICAL SKILLS

- **Languages:** Python, JavaScript, SQL
- **Frameworks:** Django REST, FastAPI, React.js, Node.js
- **Databases:** PostgreSQL, MongoDB, Redis
- **DevOps:** Docker, Kubernetes, AWS, CI/CD (GitHub Actions)
- **AI/ML:** OpenAI API, LLM fine-tuning, AI agent development

EDUCATION

Master of Science in Information Technology

Carnegie Mellon University Africa

Specialization: Software Engineering & Scalable Systems

2023 – 2025 (Expected)

Bachelor of Science in Information Technology

Adventist University of Central Africa

Specialization: Software Engineering

2019 – 2023

CERTIFICATIONS

- AWS Certified Solutions Architect – AWS, 2024
- PCAP: Programming Essentials in Python – Cisco, 2023
- Test-Driven Development in Python – LinkedIn, 2023

INTERESTS & ACHIEVEMENTS

- Passionate about leveraging technology for social change and sustainability.

- Active participant in professional development workshops and tech communities.

- Mentor for junior developers and computer science students.