Fabian Cheruiyot

Dynamic Full-Stack Engineer (Python+JavaScript) | Cloud Practitioner | BSc. Electrical & Electronics Engineering

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer and AWS-certified Cloud Practitioner with experience as a Full-Stack developer at Emmerce Ltd – an ecommerce solutions consultancy, Expert Software Development AI trainer at Pareto.AI, full-stack developer associate at ALX Africa, and as a web developer and IT support specialist at a supermarket retailer.

Motivated, proactive, and empathetic team player, enthusiastic about translating technical aspects of my field to non-technical stakeholders and audiences. Aspiring MC and recreational guitarist. Seeking growth opportunities in prolific Software Engineering and research roles, with a focus on Al and Machine Learning, SaaS, and FinTech.

ACHIEVEMENTS/ ACCOMPLISHMENTS

- Recognized for Exceptional Quality in generating Al Training Data (software development) at <u>Pareto Al</u>.
- Contributed to world-standard <u>SWE-bench verified</u> and led multiple E-commerce + SaaS web and mobile-app projects, architecting secure and efficient backend and frontend infrastructure in collaboration with 5+ team members.
- Drove a 30% annual revenue growth rate at a supermarket retailer as an assistant manager, web developer, and IT Support specialist by digitizing operations while leading branding and marketing initiatives.
- Schneider Go Green Finalist 2023, Al for Green Published Research Project: <u>A</u>
 <u>Master-Slave Salp Swarm Algorithm Optimizer for Hybrid Energy Storage System Control Strategy in Electric Vehicles</u>.
- Finalist in the Kenya Science and Engineering Fair 2014 -2015 in Computer Science.

EXPERIENCE

Software Developer, Al Training | Pareto Al | Stanford, California January 2024 – Present (Remote)

- Contributed to the development of <u>OpenAl's SWE-Lancer benchmark</u>, a global benchmark used to assess Al models' ability to tackle diverse programming challenges across multiple frameworks. Specialized in identifying and resolving edge case issues in TypeScript, React, and Vue3 codebases, to strengthening Al model performance on frontend development tasks
- Contributed to <u>OpenAl's SWE-Bench Verified benchmark</u>, troubleshooting complex Python library issues, and validating Al-generated code for real-world software engineering tasks
- Assessed quality of Al-generated code in Python, JavaScript, Vue3, React, TypeScript, and SQL
- Training of Al Agents, improving logic and efficiency in executing computing tasks.
- Solved complex/competitive coding problems, writing functional, readable, and efficient solutions for AI training.

- Developed comprehensive tests to assess edge cases and verify the efficiency and effectiveness of peer-written AI training code.
- Created structured rubrics to guide the training of AI in generating code solutions, facilitating consistent and high-quality outcomes.
- Designed and developed an in-house web application aimed at gamifying the training and onboarding process for new workers.

Full-Stack Software Engineer | Emmerce Ltd | Nairobi, Kenya November 2023 – July 2024 (Hybrid)

- Played critical roles in problem definition, software solutions architecting, and leading project execution. Enhanced collaboration with external teams by proactively communicating decisions, challenges, and suggestions to improve the product development cycle.
- Accelerated production timelines by implementing secure, scalable, well-documented, and efficient backend solutions using microservices architecture with Django and FastAPI for web and mobile applications.
- Developing responsive SaaS web-apps and dashboards using Vue.js and Vuetify, focusing on elegance, functionality, and user-friendly design language.
- Collaboration with mobile app development teams to streamline backend support, enhancing native app functionality with a touch of AI flair.

Full-Stack Software Engineering Apprentice | ALX Africa | Nairobi, Kenya October 2022 - October 2023 (Remote)

- Selected for a 12-month rigorous full-stack engineering apprenticeship program focused on programming, data structures, algorithms, and software design principles.
- Completed multiple projects, including portfolio projects that focused on building a
 Freelance Platform with an open API, an e-commerce web-app, an Airbnb clone, a
 custom C library, and shell programs in C.
- Demonstrated the ability to apply theoretical knowledge to practical problems.
- Developed strong leadership and soft skills such as communication, teamwork, proactiveness, and problem-solving through collaboration with peers and mentors.

IT Support Specialist (Part-Time) | Value Chain Supplies, Eldoret, Kenya | February 2020 - April 2023

- Cut costs by 20% and improved operations efficiency by undertaking strategic acquisition, installation, integration, and maintenance of Retail Management Systems and Surveillance systems.
- Increased brand visibility locally, boosting sales by over 10% by developing the business
 website, e-commerce platform, and overall online presence. Crafted captivating branding
 materials, including logos, banners, and promotional items, in line with the company's
 visual identity.
- Provided rapid and comprehensive technical support to 100+ end users, including staff members and customers, by resolving hardware, software, and network issues for internal staff and external customers.
- Cut technical issue response time by implementing a remote access system via VPN.

Student Engineering Intern (Full-time) | New Kenya Co-operative Creameries | Eldoret Kenya | June 2021 - September 2021

- Enhanced the factory's IT environment by installing, troubleshooting, and maintaining computer hardware, software, and the factory's Network.
- Gained experience with motor overhaul, routine inspections, cleaning, and critical equipment repairs, effectively minimizing downtime and enhancing production efficiency.
- Improved workflow efficiency through process automation, systems design, and PLC programming.

SKILLS AND QUALIFICATIONS

- Programming Languages:
 - o Main Python, JavaScript, C, SQL
 - **Secondary** MATLAB, TypeScript, Kotlin.
- **Software Development:** Web, REST APIs, DevOps, Data Structures and Algorithms, Agile Principles, Object Oriented Programming, Test Driven Development.
- Tools & Frameworks: Django, FastAPI, VueJS, React, NodeJS, AWS, PostgreSQL, MongoDB, MySQL, Docker
- Electrical/Electronic design: Embedded systems, Ladder programming, AUTOCAD
- Interpersonal: Communication, Open-Minded, Proactiveness, Problem-Solving, Time Management, Collaboration / Teamwork.

Languages:

- English Native/Bilingual
- **Kiswahili** Native /Bilingual

CERTIFICATIONS

- AWS Certified Cloud Practitioner.
- Alx Holberton School, Certified Full-Stack software engineer.
- Naamal, International Labor Organization, <u>Workforce readiness for the Digital Economy</u> Program.
- University of Nairobi, BSc. Electrical and Electronics Engineering.
- Huawei Certified Specialist Associate: Sales Transmission & Access

EDUCATION

Master of Science in Advanced Computing with Artificial Intelligence | Continuing | September 2026.

University of Stirling, Stirling, United Kingdom.

Coursework:

 Machine Learning, Statistics, Data Science, Computer Vision, Natural Language Processing.

Bachelor of Science in Electrical and Electronics Engineering | Second Class Honours Degree | September 2022

University of Nairobi, Nairobi, Kenya.

Coursework:

- Digital Systems Design, Control Systems, Communication Systems, Artificial Intelligence and Machine Learning, Python Programming, Django Web Development, C, C++, and PLC Programming, Embedded Systems Design
- Published research project in Al for energy consumption optimization in Electric Vehicles.

PROJECTS, PUBLICATIONS & PRESENTATIONS

- Cheruiyot, F. and Davies Segera (2022). A Master-Slave Salp Swarm Algorithm Optimizer for Hybrid Energy Storage System Control Strategy in Electric Vehicles. Journal of Energy, 2022, pp.1–20. https://www.hindawi.com/journals/jen/2022/1648433/.
- Cheruiyot, F. and Mulwa, A. (2023) Al for green an advanced Al algorithm for cheaper sustainable energy management in Micro-grids, PPT. Available at:
 https://www.slideshare.net/SezFabian/ai-for-green-an-advanced-ai-algorithm-for-cheaper-sustainable-energy-management-in-microgrids.
- Cheruiyot, F. (2024). TrackYourFarm SaaS web app for farm management. Available at: https://trackyourfarm.com/
- Cheruiyot, F. et al. (2023). HustleFiti, an Online Freelance Marketplace for contract services, HustleFiti Notion Page. Available at: https://winter-mint-a1c.notion.site/HustleFiti-Web-APP-Project-eb5f491359cf4a35a505912
 9ab6d947e?pvs=4

REFERENCES

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