

Matilda Mwendwa, Software Engineer

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LINKS

LinkedIn, GitHub

PROFESSIONAL SUMMARY

Computer Science graduate with experience across software engineering, data analysis, databases, cybersecurity, and applied AI. Experienced in Python, SQL, JavaScript/TypeScript, relational and NoSQL databases, and data-driven research, with practical experience developing software systems, analysing large datasets, and building AI-enabled solutions. Strong foundation in problem-solving, technical research, and collaborative software development.

EDUCATION

Sep 2020 — Aug 2026

Bachelor of Science in Informatics and Computer Science, Strathmore University

Nairobi, Kenya

Earned a Bachelor of Science in Informatics and Computer Science Degree with First Class Honours.

Relevant coursework: Probability & Statistics I & II, Database Systems, Advanced Database Systems, Machine Learning, Data Structures & Algorithms, Artificial Intelligence, Distributed Systems

TECHNICAL PROFICIENCIES

Programming:

Software Engineering:

Data & Databases:

AI & Machine Learning:

Cloud, Infrastructure & Development Tools:

Python, Javascript/Typescript, SQL, C++, PHP

React, Next.js, Redux Toolkit, Node.js, Express.js, REST APIs

MySQL, MongoDB, Firestore, Data Analysis, Power BI

Machine Learning, Artificial Intelligence, Natural Language Processing, Embeddings, Retrieval-Augmented Generation, Vector Databases

Firebase, Docker, Vercel, Git, GitHub, Linux, DigitalOcean

EMPLOYMENT HISTORY

Jan 2024 — Apr 2024

Software Engineering Intern, Microsoft

Nairobi, Kenya

Optimized database queries, indexing, and caching strategies in collaboration with the engineering team to improve application performance.

Jan 2023 — Apr 2023

Software Engineering Intern - Cybersecurity, Communications Authority of Kenya

Nairobi, Kenya

Researched cybersecurity threats and incidents in Kenya, analysing findings and producing reports with recommended mitigation strategies.

Conducted domain mapping, port scanning, and vulnerability assessments using open-source and proprietary security tools, documenting findings for further analysis.

Selected as the sole intern to participate in a focus group contributing to the organisation's 2023–2028 Strategic Plan.

May 2022 — Sep 2022

Software Developer, Shades of Ruth

Nairobi

Developed and enhanced a responsive e-commerce application, supporting core product, customer, and order management functionality.

Implemented data management and an administrative interface for managing products and orders.

PROJECTS

2025 — 2026

MicroVision | Software Engineering & Research Project

Strathmore University

Developed a data-driven system for analysing large volumes of unstructured application logs to identify relationships between microservices.

Designed a processing and analysis pipeline that combined structured extraction, semantic analysis, information retrieval, and AI-based reasoning.

Evaluated the approach using precision, semantic coherence, scalability, and runtime performance, identifying limitations and areas for improvement.

PROGRAMS & ACHIEVEMENTS

2020 — 2026	Dean's List Award Strathmore University Awarded for excellent academic performance all four years.	Nairobi
Jul 2023 — Jul 2023	Brno International Summer School in Information Technology Brno University of Technology Completed an international summer school focused on Machine Learning	Brno, Czech Republic
Jul 2022 — Jul 2022	Hackcorruption Hackathon Accountability Lab Developed a digital solution for government procurement transparency; won the competition and received a \$10,000 development award.	Johannesburg, South Africa
May 2021 — Aug 2021	Microsoft Africa Development Center – Software Engineering Mentorship Program Collaborated in a five-person development team to develop a sustainable agriculture solution for Kenyan farmers; placed second.	Nairobi

VOLUNTEER EXPERIENCE

Jan 2022 — Mar 2022	Global Volunteer, AIESEC Spent 7 weeks in Egypt contributing towards the 8th SDG (Decent Work & Economic Growth) by: attending workshops and training seminars aimed at imparting knowledge regarding marketing and economic growth, Curated content to help market tourism in Egypt and engaged in community service activities such as donating provisions to the children's homes.	Cairo, Egypt
Jun 2018 — Aug 2018	Teaching Assistant, Pacemaker International Volunteered as a teaching assistant at Njathaini Primary School, a school situated in marginalized area. The key responsibilities included: • Teaching the class 7 and 8 pupils Mathematics & Science and making learning aids for the classrooms. • Come up with innovative solutions to the problems the school was facing, for example identifying the need for a library and inventing the Mobile Ankara • Library that we developed into a conducive room for learning and reading. • Helped the teachers train the sports teams and took them to their first county competitions. Participating in this program resulted in receiving an Innovation Award from the Pacemaker International organization.	Nairobi, Kenya

LANGUAGES

English

Swahili