

James Kanyiri

Applied AI Engineer | Agent Harnesses, MCP & Evals

Nairobi, Kenya (UTC+3, open to remote) · +254 797 357 665 · jmskanyiri@gmail.com · linkedin.com/in/james-kanyiri-b48b6b1a7 · github.com/jameskanyiri · jameskanyiri.com

SUMMARY

Applied AI engineer with 7 years in software, the last 4 focused on ML and LLM systems. I build agent harnesses, eval pipelines and AI-native software across backend and frontend, in Python (LangGraph, FastAPI) and TypeScript (Next.js). I also run the AI platforms underneath, managing the Anthropic, OpenAI and Fireworks accounts at Splotch and Bayes. At Splotch I build the agentic execution layer for NetSuite ERP. At Bayes Consulting I build agent platforms and climate and GIS data pipelines for development-finance clients.

Core stack: Python, LangGraph, LangChain, LangSmith, MCP, FastAPI, PostgreSQL, Redis, TypeScript, Next.js, React, Playwright, Docker, Kubernetes

EXPERIENCE

Splotch, Boulder County, Colorado, US (remote)

Apr 2026 – Present

Lead Applied AI Engineer, part-time

- Building the agentic execution layer that lets AI agents work safely inside NetSuite ERP: assessing a company's setup, planning configuration changes and showing what a change will affect before it is made. Real customers use the agent and MCP server in their NetSuite work.
- Led the agent harness build (Python, LangGraph), from choosing the framework to advising the team on what the agents could do. It includes sub-agents, skills loaded on demand, context summarisation, loop detection, approval before destructive actions, and support for multiple model providers.
- Co-built Splotch's MCP server, so tools like Claude Code and Cursor can explore a customer's NetSuite setup through OAuth-secured tools.
- Built a browser for the agent (Playwright, headless Chromium) with a live view and a takeover mode, so a person can step in mid-task.
- Run evals and trace reviews in LangSmith and monitor errors and alerts in Sentry, keeping the agent reliable and its costs down.
- Administer Splotch's Anthropic, OpenAI and Fireworks accounts: members, workspaces, API keys and spend limits.

Bayes Consulting Limited, Nairobi, Kenya (remote)

Jul 2025 – Present

Applied AI Engineer, full-time

- Administer Bayes' Anthropic, OpenAI and Fireworks accounts: user access, workspaces, API keys and spend limits.
- Built Scopi.us, Bayes' AI-native workspace for climate and energy advisory teams: a LangGraph agent, FastAPI backend and Next.js frontend, deployed on Kubernetes. It is guiding Nairobi's NCARP climate-adaptation project, where the team uses it to find funders, send emails and follow-ups, and plan work.
- Built an MCP server and Outlook and meeting-transcript connectors, so the agent and outside tools can work with projects, tasks, documents and email.
- Built climate and energy data services the agent uses: a cost-of-inaction model for Nairobi's flood, heat, water and air-pollution risks, and mini-grid site screening across Kenya.
- Modelled climate flood risk for a wastewater treatment plant through to NPV, IRR and DSCR.
- Built a GIS pipeline for FSD Africa that turns programme reports into mapped, evidence-linked sites, shown on an interactive map (Next.js, MapLibre).
- Built the agent and backend for a tender-bidding platform, with sub-agents that extract tender requirements and check bids against them.

Thumbprint Consulting, Kentucky, US (remote)

Nov 2024 – Feb 2025

Lead AI Engineer, contract

- Built a grant-writing platform covering grant search, eligibility checks, drafting, review and submission, integrated with Instrumentl and Candid.
- Built RAG over the client's past proposals, staff bios, policies and project evidence (document ingestion, embeddings, Qdrant vector search), so drafts cite approved sources.
- Designed a multi-agent LangGraph drafting workflow grounded in that knowledge base, with rubric-based review that flags compliance gaps before staff sign-off.
- Ran section agents in parallel instead of one after another, cutting the time to a full first draft by about 40%.

Sarabi Startup Studio, Nairobi, Kenya (remote)

Nov 2022 – Oct 2023

Machine Learning Engineer, part-time contract

- Built ML features for a WhatsApp assistant for farmers: computer-vision models that identify crops and spot disease and pests from photos, and English and Swahili answers.
- Built the service in Node.js and MongoDB. User engagement rose 30%.

Payecards, Türkiye (remote)

Jan 2023 – May 2024

UX/UI Designer → Back-End Developer, full-time

- Started as UX/UI designer for the mobile and web apps, then moved to back-end work.
- Led an internal tracing service that let engineers follow a bug from the user's screen to the failing API call, cutting time to find root causes by about 40%.

Greenbear Technologies, Nairobi, Kenya

Jan 2019 – Jan 2023

Full-Stack Web Developer, part-time alongside BSc

- Built web platforms for car dealerships and a rental business (Laravel, MySQL), from client discovery and UX design to launch. Mentored junior developers.

PROJECTS & COMMUNITY**Workpods: AI-native workspace, solo build · workpods-frontend.vercel.app**

Dec 2025 – Present

- Built a workspace where people and their agents share projects and tasks, end to end: agent harness, backend and frontend.
- Built a memory layer: agents learn from completed work, propose memories and new skills for a person to approve, and catch users up on what changed.
- Built connectors for Gmail, Outlook and Google Workspace, with user approval before the agent sends or deletes anything.
- Built a canvas where the agent creates documents, Excel workbooks, slide decks and dashboards that update live as it works.
- Connected agents to OpenMRS health records through a secure, read-only connector.

LangChain Community Kenya: Lead Organiser (volunteer)

Jul 2025 – Present

- Started Kenya's LangChain developer community (100+ members in the first month) and ran hands-on sessions on building and deploying agents. One team I mentored shipped a production agent for Healthy U.

Nairobi International Trade Fair: Committee Member & IT Consultant (freelance)

Feb 2024 – Aug 2026

- Moved judge recruitment and vetting online, cutting the committee needed to run it from eight people to four.

EDUCATION**BSc Computer Technology**, Multimedia University of Kenya · 2019 – 2023

Courses: LangChain Academy: Agent Observability & Evaluations (2026), Deep Research with LangGraph (2025), Introduction to LangGraph (2024) · Udacity: Machine Learning (2021) · Huawei: Datacom (2022), Information Systems Security (2021)

SKILLS

- **Agents & platforms:** LangGraph, LangChain v1, Anthropic, OpenAI and Fireworks APIs and account admin, RAG, embeddings, vector databases (Qdrant, Chroma), MCP servers (OAuth 2.1), middleware, sub-agents, skills, human-in-the-loop, memory, browser agents (Playwright, CDP)
- **Evals & observability:** LangSmith, Sentry error monitoring and alerts, eval pipelines, trace and cost analysis, prompt caching, token budgets
- **Data & GIS:** Python, SQL, pandas, NumPy, GeoJSON, MapLibre, PDF parsing and OCR, scikit-learn, TensorFlow, Keras
- **Backend:** FastAPI, SQLAlchemy, Alembic, PostgreSQL, Redis, MinIO/S3, Node.js, Go, Laravel, JWT, RBAC
- **Frontend & delivery:** TypeScript, Next.js, React, Tailwind, Vitest, Playwright, Docker, Kubernetes, Jenkins, GitHub Actions
- **Languages:** English (fluent), Swahili (native)