

KATLEGO MOKOTO

● AVAILABLE

AI ENGINEER · AI SYSTEMS ARCHITECT · FULL-STACK + .NET / C#

katlego.mokoto.km@gmail.com | 065 842 4274 | mensmercatus.online | Johannesburg, South Africa · Open to Johannesburg, Pretoria, Cape Town & Durban (on-site, hybrid or remote)

Targeting AI engineering / AI developer / full-stack .NET roles. Portfolio proof: Cartel .NET robot (ASP.NET Core 8 + Gemini), THINK (React 19 + Vite + TypeScript), Mens Mercatus Sound Deck, Forex Mercatus Codex, JobNet, Antigravity / local LLM stack. Walkthrough: mensmercatus.online/assets/video/walkthrough.mp4

TECHNICAL STACK

LANGUAGES	Python, TypeScript, C#, JavaScript, SQL, Bash, Solidity
FRONTEND	React, React 19, Next.js, Vite, Flutter, Tailwind, Web Audio / DAW UIs
AI / ML	LLM orchestration, RAG, LangChain, Ollama, Agent Zero, Gemini (OpenAI-compatible API), prompt/tool agents, ChromaDB, local inferencing (Apple Silicon M4)
BACKEND	ASP.NET Core 8, .NET / C#, FastAPI, Node.js, Express, Django, WebSockets, Redis
CLOUD & INFRA	Nebius, Docker, Linux, systemd, nginx, Cloudflare, CI/CD, AWS, Ubuntu VPS, edge / local-first AI
DATA	PostgreSQL, Pandas, NumPy, yfinance, OR-Tools
AUDIO / REALTIME	Web Audio API, mic capture, stem DSP, generative synthesis, live-voice WebSocket relay
SYSTEMS	P2P/BLE mesh, agentic workflows, Cursor IDE automation, per-IP rate limits

CORE DOMAINS

Agentic AI & Local Compute

OLLAMA · AGENT ZERO · CURSOR · RAG · CHROMADB · APPLE SILICON M4 · GEMINI

Design and ship sovereign agent stacks: tool-using agents, RAG over live data, local LLM orchestration, and Gemini via an OpenAI-compatible chat/completions client.

Applied AI Product Engineering

FULL-STACK · ASP.NET · REACT 19 · WEB AUDIO · AUTOMATION

Build end-to-end AI products (generation UIs, copilots, job-automation meshes, multimodal workspaces) with production-minded UX and human-in-the-loop controls.

.NET / C# backends & VPS ops

ASP.NET CORE 8 · SYSTEMD · NGINX · CLOUDFLARE · UBUNTU VPS

Ship ASP.NET Core 8 minimal APIs that call Gemini through an OpenAI-compatible interface, with retries on 429/5xx, running as systemd services behind nginx on an Ubuntu VPS; Cloudflare in front of the static site.

SELECTED AI PORTFOLIO

Mercatus Assist / Cartel Robot

2026 · ASP.NET Core 8

C# · Gemini · systemd · nginx · Cloudflare · Ubuntu VPS

- ASP.NET Core 8 minimal API calling Gemini via an OpenAI-compatible chat/completions client (provider swappable in config); exponential backoff retries on 429/5xx.
- Runs as a systemd service on an Ubuntu VPS behind nginx; live Assist at mensmercatus.online/apps/mercatus-assist/ with labelled DEMO fallback if the robot is unhealthy.

C# ASP.NET Core 8 Gemini systemd nginx

THINK — Hybrid Social & AI

2026 · React 19 + Vite

TypeScript · Gemini proxy · WebSocket live-voice · per-IP rate limits

- Multimodal Gemini workspace (chat, live voice, Net Sites, Net Code, Netzar Protocol, Net Learn). Front end: React 19 + Vite + TypeScript; server-side Node proxy with WebSocket live-voice relay and per-IP daily caps.
- Live at mensmercatus.online/think/. 60s walkthrough: mensmercatus.online/assets/video/walkthrough.mp4.

React 19 Vite TypeScript Gemini WebSocket

Mens Mercatus Sound Deck

2026 · Browser DAW

AI Producer · generative audio · Web Audio

- Original browser DAW with AI Producer, demo stem split, 16-step beats, mic/vocal pipelines, VST slot framework, and in-house text-to-music / stem / continuation generation.

Web Audio Agents DSP TypeScript/JS

Project Antigravity

Mar 2026 – Present

AI Systems Architect & Founder

- Sovereign, decentralized AI OS for autonomous task execution and specialized agentic workflows.
- Terminal-first AI tooling on M4 with Ollama; Nebius for scalable training/deploy; Agent Zero + Cursor orchestration.

Ollama Agent Zero Nebius LLM Ops

JobNet

2026 · Career automation

- Weekday pipeline: noon multi-board scrape; CV tailor + draft fills with human confirm before submit; Gmail reply watch + notify. Never auto-sends or auto-applies.

Automation Agents Gmail

- ~87MB Python + Highcharts desk for FX workflows; paper research only — not a brokerage.

Python Highcharts yfinance

SELECTED EXPERIENCE NARRATIVE

- Hands-on builder of agentic products: copilots that execute studio/job/market actions with explicit user confirmation gates.
- Comfortable in Python, TypeScript, and C# / ASP.NET Core; ships Gemini-backed APIs on a VPS (systemd + nginx) and React 19 fronts on the portfolio.
- Background in fleet/logistics optimization (OR-Tools) and diesel/mechanical operations — strong systems thinking under real constraints.

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