

KATLEGO MOKOTO

AI Engineer · AI Systems Architect · Full-Stack + .NET / C#

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Status: AVAILABLE

SUMMARY

AI engineer and developer — products, platforms, agentic systems, and ASP.NET backends.

Targeting AI engineering / AI developer / full-stack .NET roles at OpenAI, Anthropic, Google DeepMind, Meta AI, Microsoft AI, NVIDIA, and applied-AI startups (xAI, Waymo, ElevenLabs, Scale AI, Sierra, Cursor, Perplexity, Cognition, Replit, Mercur).

Portfolio proof: Cartel .NET robot (ASP.NET Core + 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

Data: PostgreSQL, Pandas, NumPy, yfinance, OR-Tools

Cloud & Infra: Nebius, Docker, Linux, systemd, nginx, Cloudflare, CI/CD, AWS, Ubuntu VPS, edge / local-first AI

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

Design and ship sovereign agent stacks: tool-using agents, RAG over live data, local LLM orchestration to cut API dependency, and high-throughput inferencing on Apple Silicon. Cloud path uses Gemini via an OpenAI-compatible chat/completions client.

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

Applied AI Product Engineering

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

FULL-STACK · ASP.NET · REACT 19 · WEB AUDIO · AUTOMATION · USER-FACING AI TOOLS

.NET / C# backends & VPS ops

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 with Cloudflare in front of the static site.

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

SELECTED AI PORTFOLIO

Mercatus Assist / Cartel Robot — 2026 · ASP.NET Core 8 · Gemini [LIVE]

ASP.NET Core 8 minimal API (C#) that calls Gemini through an OpenAI-compatible chat/completions client so the provider can be swapped in config. Exponential backoff retries on 429/5xx. Runs as a systemd service on an Ubuntu VPS behind nginx; static site on DreamHost sits behind Cloudflare.

- Live Assist chat at mensmercatus.online/apps/mercatus-assist/ with labelled DEMO fallback when the robot is down.
- Same-origin PHP proxy → VPS; architecture notes at mensmercatus.online/apps/net-workspace/.

C#, ASP.NET Core 8, Gemini, systemd, nginx, Cloudflare

THINK — Hybrid Social & AI — 2026 · React 19 + Vite + TypeScript [LIVE]

Multimodal Gemini workspace (chat, live voice, Net Sites, Net Code, Netzar Protocol, Net Learn). Front end is React 19 + Vite + TypeScript; server-side Node proxy calls Gemini and relays live-voice over WebSocket, with per-IP rate limits.

- Live at mensmercatus.online/think/.
- 60s portfolio walkthrough: mensmercatus.online/assets/video/walkthrough.mp4.

React 19, Vite, TypeScript, Gemini proxy, WebSocket live-voice

SoundX / Sound Deck — 2026 • Browser DAW / AI music [DEMO]

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

- Generate, demo play, mic, and AI Producer on mensmercatus.online apps hub.
- Gold/black/white Mens Mercatus product UI; no third-party music-site dependency.

Web Audio, Agents, DSP, TypeScript/JS

JobNet — 2026 • Career automation [DEMO]

Weekday pipeline: noon multi-board scrape; CV tailor + AI Hawk draft fills with human confirm before submit; Gmail reply watch + SMS/email notify.

- Noon scrape across top AI employers + early-stage trackers.
- 3 AM CV tailor + draft fills; human-in-the-loop gates before any submit.

Automation, Agents, Gmail, macOS shell

Forex Mercatus Codex — 2026 • Python desk :8790 [DEMO]

~87MB Python + Highcharts desk for FX workflows; Chart, Multi, Whales, Flow, Bot. Hosted on VPS as live paper research.

- Inventory and load-path optimization for faster cold start and clearer static serving.
- Market data fused with interactive analysis desks.

Python, Highcharts, yfinance, Paper only

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 of custom models; Agent Zero + Cursor orchestration.

Ollama, Agent Zero, Nebius, LLM Ops

Mens Mercatus Ecosystem — Ongoing • mensmercatus.online

Full-stack, .NET & AI systems

- Telegram AI trading assistant: RAG + live financial feeds for XAUUSD / cyclical models (SMT, Gann frameworks) with institutional-order context.
- Brand, UI/UX, and portfolio architecture including the Cartel ASP.NET Assist robot and the THINK multimodal workspace.

Python, C# / ASP.NET, LangChain, ChromaDB, React / Next.js

Messmakers / Flutter Overlay — 2026

Mobile UI systems

- Flutter package fixing z-order: gray AI sound/volume bar above white social band; theme extension, haptics, demo app — drop-in for Messmakers / ThinkPulse clients.

Flutter, Dart, UI systems

ProxNet • Infrastructure.log — Parallel systems work

Edge & mesh

- BLE/WebRTC mesh social (offline-first) and M4 SSD arrays for model weights / vector DBs — edge-ready AI compute hygiene.

React Native, P2P, Edge

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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