Binyam Mulat Abegaz

AI Engineer / Full Stack Developer

binyammulat244@gmail.com +1 437-757-8690 Toronto, ON Website GitHub

EDUCATION

BSc in Electromechanical Engineering 05/2022 – 06/2026 | Addis Ababa, Ethiopia
Addis Ababa Science and Technology University
- Relevant Courses: Introduction to Programming (cpp), Machine Learning, Mechatronics System, Computer Vision, Numerics (Computational Methods), Robotics, Embedded Systems, Modern Control

Coding School 11/2023 – 11/2024 | Addis Ababa, Ethiopia
Africa to Silicon Valley
- Studied advanced Data Structures and Algorithms and backend engineering, solving 800+ problems on LeetCode and Codeforces through a technical fellowship

Kifiya AI Mastery (KAIM) Training Program 05/2025 – 08/2025 | Addis Ababa, Ethiopia
10 Academy
- Selected for an intensive 3-month **AI Engineering** residency focused on high-level competency in **Generative AI**, Machine Learning, and Data Engineering

PROFESSIONAL EXPERIENCE

AI Engineer 06/2026 – 09/2026 | Addis Ababa, Ethiopia
Mella Software Solutions PLC
- Deployed LTX-based **video and Image generation pipelines** and Qwen multimodal models with FastAPI on a remote production server for video, text, and image generation.
- Implemented logging and retry handling in production workflows to help diagnose failures and improve resilience during processing.
- Automated extraction from multiple **1,000+ page technical datasheets** containing images and tables using Docling, reducing processing time to under 10 minutes per datasheet for RAG system.

AI system engineer 09/2025 – 11/2025 | Addis Ababa, Ethiopia
Budera
- Built a hybrid multi-agent system with Laravel, Laragent, and Vizra to categorize and analyze 1000s of **financial transaction records**, replacing a largely manual categorization process.
- Built a FastAPI and LangChain microservice with MCP support to connect LLMs to 30+ external financial data sources and work with live financial data.

AI and Machine-Learning Intern 01/2025 – 05/2025 | Addis Ababa, Ethiopia
iCog Labs
- Designed and developed a bioinformatics AI agent using a custom-built MCP server and BioBlend, using FastAPI for the backend with Gemini, OpenAI, and Groq support, allowing the agent to work with multiple LLM providers.
- Engineered a React platform to integrate and test genetic data visualization tools including JBrowse and LocusZoom, validating more than 100 integrated tools for research applications.
- Implemented regression, classification, clustering, and neural-network models across **10+ machine-learning projects**, applying end-to-end model development during the training program.

PROJECTS

Hyprland AI Assistant 10/2025 – 01/2026
Copilot for Linux
- Developed a **native AI desktop assistant** to eliminate workflow friction**,** reducing the time and steps for common AI tasks (e.g., code generation, image analysis) by over 75% compared to browser-based alternatives.
- Designed the core application in **Golang, utilizing the Flyt framework** to structure agentic logic and manage conversational state, including **multimodal** (text, image, web search) interactions with **Google's Gemini API**

Info-Stream 08/2025 – 10/2025
Real-time message filtering and alerts for Telegram
- Built a **real-time message monitoring** and alerting system using a personal Telegram account as listener and **bot as user interface**, transforming 100+ high-volume channels into personalized semantic intelligence feeds
- Integrated Google Gemini API to generate **real-time vector embeddings** for every incoming message; enabled **semantic similarity search** via PostgreSQL + pgvector, delivering **context-aware alerts** based on natural-language user subscriptions.

SKILLS

PyTorch, Scikit-learn, Django, Fast API, Golang, Gin Framework, PHP, Laravel, C, C++, React, TypeScript, MongoDB, PostgreSQL, CICD, Git/Github, Linux, Docker